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Vol. II

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1935.

No. 312

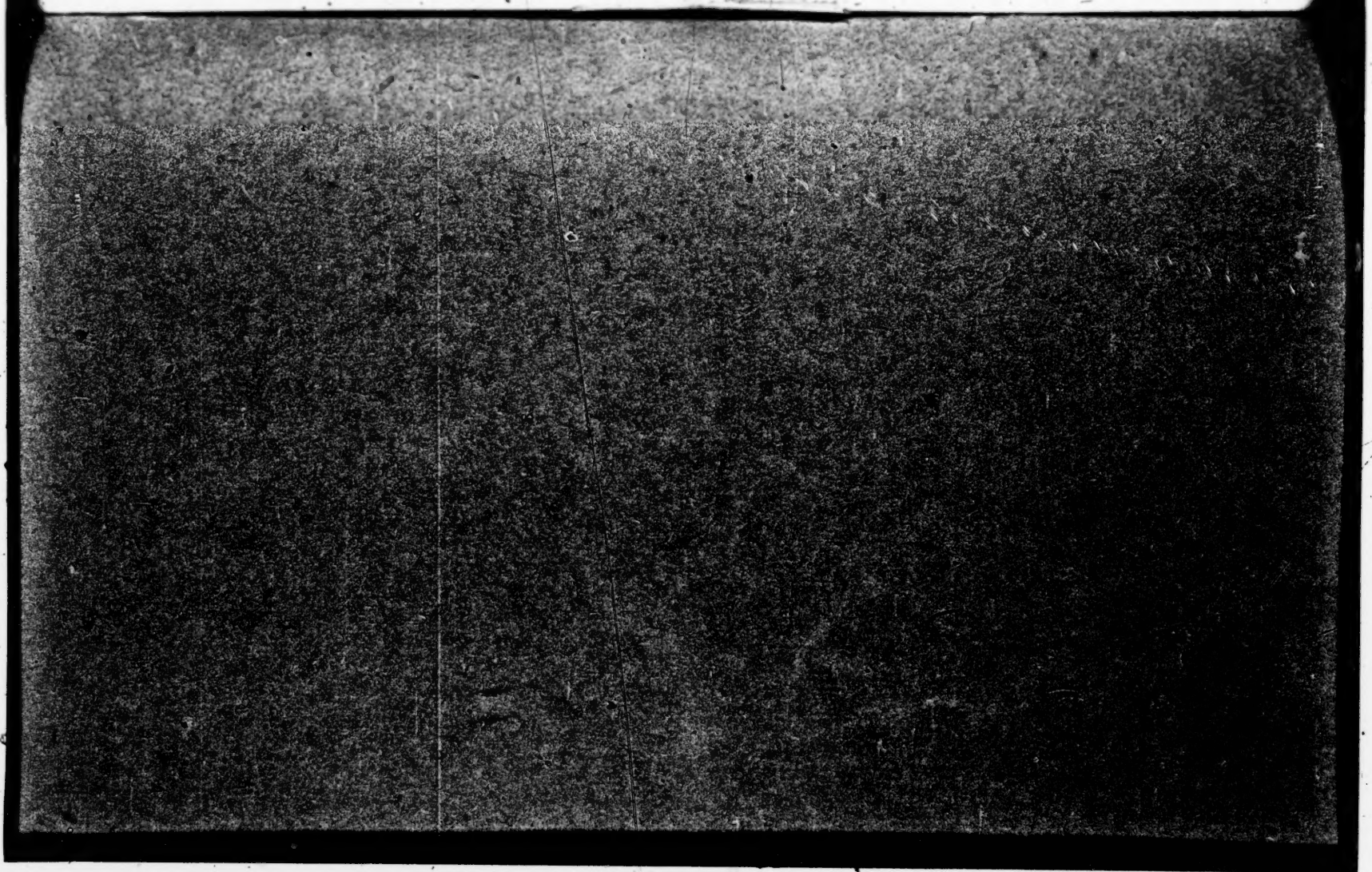
THE BALTIMORE AND OHIO RAILROAD COMPANY, THE PENNSYLVANIA RAILROAD COMPANY, THE RICHMOND, FREDERICKSBURG AND POTOMAC RAILROAD COMPANY, ET AL., APPELLANTS,

vs.

THE UNITED STATES OF AMERICA, INTERSTATE COMMERCE COMMISSION, ATLANTIC COAST LINE RAILROAD COMPANY, ET AL.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF VIRGINIA.

FILED JULY 31, 1935.



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(e) Wheeling & Lake Erie Railroad:

Cars for interchange between the Wheeling & Lake Erie and Nickel Plate railways are handled by puller crews, the arrangement being of the same duration and same alternating plan as the Pennsylvania. Cars for Nickel Plate Railway are accepted as interchanged when delivered in their 55th Street Yard, cars for the Wheeling & Lake Erie Railroad are accepted as interchanged when delivered in their coal dock yard. The distance from Food Terminal to coal dock yard is approximately three miles, and in this inter-terminal operation between the two lines the main line of the Erie is traversed for a distance of approximately 1.5 miles. The costs for use of the Erie Railroad in this operation are the same as described in the Pennsylvania interchange arrangement. The amount of perishable, including citrus fruit, will not average more than 10 cars per month, but the greater portion of such movements are spe-
[fol. 1274] cial, but the arrangement for such special service as may be necessary is the same as described in the Pennsylvania interchange operation.

Cleveland Food Terminal is divided into three track areas, as follows: (a) Team track placement yard, 17 tracks, capacity 25 cars each; (b) Holding Yard, 12 tracks, total capacity 320 cars; (c) Auction house terminal, 3 tracks, capacity 14 cars each.

In addition to the above trackage, there are four tracks serving cold storage, warehouses, produce merchants and industries.

Auction sales are held on Mondays, Wednesdays and Fridays, and cars must be in their proper position not later than 5 A. M. on sale dates, to admit of their being unloaded not later than 7 A. M., to permit the pulling of all cars from these tracks, so that trucks may use the unloading platform as tailboard space for loading. As a general rule, there is very little switching at the auction house on Saturdays, but Sunday, Tuesday and Thursday of each week there is a considerable amount of switching to line up the cars listed for sales. These cars are placed in the team track placement yard and are switched from these tracks, by number and initial, for placement at auction terminal in accordance with instructions received. There is a con-

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stant re-handling of cars between the team track place-
[fol. 1275] ment yard and auction terminal, and the spotting at auction terminal is an intricate operation because of the necessity for placing the car at a particular, designated location. It is intricate because of the fact that cars are being iced by truck, refrigeration inspection being made by inspectors, seal and other records being taken by clerks and inspection of commodities being made by Federal inspectors, brokers, employees and others, and it is necessary to know that such persons are clear of the cars and track before a switching operation can begin.

In addition to the many re-handlings between the auction terminal and team track placement yard, there is a great deal of switching necessary to take care of reconsignments and diversions for movement to auction terminal, various connections, and for training for line movement. A factor of material interference in the switching operation in the team track placement yard is brought about by reason of the fact that a great number of cars within this yard are in process of unloading or partly unloading as a result of sales from the car direct, or are being re-iced from truck. It is not unusual for cars to remain in this yard from four to ten days, requiring many re-handlings before the lading is entirely discharged, and the cars which have to be handled from which a part of the lading has been discharged require extremely careful movement, in order to preclude [fol. 1276] the possibility of damage to that portion of the lading remaining in car.

The holding yard is used exclusively for cars which are at the moment destined to auction terminal to minimize switching, and during certain months of the year, usually May, September, and October, the overflow has to be placed in auction storage yards, and when this is necessary the switching operation is over an ascending two percent grade, requiring extremely careful handling and heavy power.

An effort is made to deliver all cars of perishable within a two-hour period from time car is delivered to Nickel Plate. The handling of all perishable, including citrus fruit, takes priority over all other yard operations, and other cars are handled thereafter, in order of their importance. In the handling of merchandise and other freight, because of later delivery orders, they can be held for accumulation of larger

cuts, but cars containing perishable cannot be held. Their delievery must be effected as quickly as possible.

Cincinnati is one of the principal distributing points for Florida citrus fruits in C. F. A. territory, but I am not in a position to state the exact manner in which this distribution is arranged. It is, however, my understanding that market conditions govern as controlled by supply and demand [fol. 1277] in the reconsignments or diversions from Cincinnati. My experience is that fruit is not ordinarily reconsigned or diverted to Cleveland market from Cincinnati until the second afternoon prior to unloading time at Cleveland, which makes most of this freight arrive—Cleveland late in the morning of the auction sales day, which necessitates special service to handle to auction terminal, with a minimum of time. The Produce Terminal at Cleveland is a new terminal finally completed late in 1929. It offers all the advantages of any of the modern fruit terminals as described here. It has three free areas and auction warehouses, with team track placement yards and storage yards. The investment represents a great deal of money to pick out a suitable area which would be convenient to the people demanding service. It was necessary to fill in I would say, approximately an acre and a half to a depth of 90 feet. The other part of the area was used by buildings which had to come down, of course. Streets had to be taken off the map and new streets put in. Some of the driveways are 100 feet in width, others are 60. We have 60-foot driveways between our tracks in our team track yard, which are tracks in banks of two so that one of the tracks is served by one side of the driveway and the other by the other.

The auction house, I cannot give you the distance of that, holding 14 cars on each track, I would say is approximately 400 or probably 600 feet long. An auction house is [fol. 1278] a peculiar operation to people who are not familiar with it, of course. It involves a very special spotting of cars. Our tracks are sunk in concrete so that after the freight is unloaded the cars are pulled out and the trucks use the same space for tailboard space.

The highest auction we have ever had in Cleveland has been 70 cars, which indicates somewhat the capacity of the display room in the auction terminal.

The operation of that from the placing of the cars and the cataloguing of the fruit and the unloading and the dis-

playing and the auctioning and then the reloading up again, taking out of the empties and replacing of cars, would, I think, approximate our modern machine production in a modern plant, so intricate are all the different moves and how they have to dovetail.

We in the Operating Department are anxious to keep up our end. In addition to that we have a large space used for a produce terminal distinguished from carload shipment, but having special reference to produce coming in by truck from an area of probably 50 miles, so the net result is that a man can come there, a buyer, and select everything he needs in the way of citrus fruits, vegetables and even the local produce that is grown there. It is still being extended to this extent, that large receivers of perishable freight are putting in private tracks in order to facilitate [fol. 1279] the movement. We have an incinerator to take care of the rubbish and refuse that comes out of the cars. That is necessary because that food being handled must be handled in a cleanly manner and the premises must be kept clean. We have a snow plow arrangement and we put on a tractor there to keep the roadways clear in the wintertime.

The streets or concrete driveways are flushed with water a couple times a month, especially this time of the year, in order to keep the premises in a clean and sanitary condition.

I have previously stated in reference to interchange operation that there is a considerable amount of special crew service devoted exclusively to the handling of perishable, including citrus fruit, and I know that at times it is necessary to operate a special train service with not more than 12 or 15 cars from the Baltimore & Ohio connections at Lima to Cleveland, an approximate distance of 150 miles, in order to make the necessary time delivery of citrus fruit for food terminal auction. Perishable, including citrus fruit, set off by Nickle Plate trains in the 55th Street Yard is in nearly every instance handled special from set off point to food terminal, a distance of about one mile.

Clerical service: There is a considerable amount of clerical work involved in the handling of perishable, including citrus fruit, within the food terminal, requiring data as to [fol. 1280] refrigeration, compiling waybill data for the benefit of traffic department, consignees and consignors,

checking cars from which sales are conducted direct, reporting arrivals by telephone and telegraph, and making switching lists for the handling of cars in the entire area.

Inspection: There is, of course, a class A inspection rendered on all cars containing perishable, including citrus fruit, and in addition a refrigeration inspection, which requres more time because of the inspection from the top of car to car bunker, commodity, and taking inside temperatures. It should be borne in mind that it is necessary to make inspection of all cars containing commodities in the food terminal once each 24 hours, and in the winter time, when the greater portion of perishable is received under ventilation protection, the proper position of ventilators and plugs is of vital importance in the protection of the commodities, requiring time and labor not necessary with other freight.

Cross-examination.

By Mr. Gwathmey:

I am representing the Nickel Plate Railroad, the New York, Chicago & St. Louis. This produce terminal is located on that road. It is leased by the Nickel Plate and owned by the Northern Ohio Food Terminal. I have no [fol. 1281] figures but I would say considerably more than 1 percent of the produce handled in that terminal is represented by Florida citrus fruit. I would say not more than 10 percent. There is a considerable amount of California citrus fruit—not more during the season, but the California fruit runs for a longer duration and there is more during a period of one year.

I do not know that I am qualified to say over what routes north of Cincinnati the Florida citrus fruit moves into Cleveland. It is sometimes the Pennsylvania or the Baltimore & Ohio or the Chesapeake & Ohio. The greater portion of it is over routes other than the Nickel Plate. Our company switches for the competing lines. The Food Terminal is open to all competing lines into Cleveland. The charge for that switching is $12.50 per car. That is greater than the ordinary switching charges in the Cleveland District which is, I believe, $3.15. The reason for the extra charge is because perishable freight has to be handled, practically all of it, specially and because of additional clerical

expense involved in the handling of it. I do not think the desire of our company to secure the movement via any particular route has anything to do with our charge of $12.50 for switching for other lines.

By Mr. Hobbs:

The engine crews on the Nickel Plate get what we call [fol. 1282] a road rate, just a few pennies more per hour than the ordinary yard rate. We regard it as a road service but it is terminal service. We use yard crews. We have to pay that rate. They operate over a foreign line.

By Mr. Gwathmey:

I do not think our company makes any charge to cover the unloading and stacking, and so forth, on Florida citrus fruit but I am not qualified to answer that. The auction market is held in our terminal. I am not sure whether we make any charge for the use of those terminals for that purpose.

C. W. DILFILL, having been first duly sworn, testified as follows:

Examined by Mr. Fitzpatrick:

I am C. W. Dilfill; Detroit, Michigan; Operating Vice-President of the D. T. & I. Railroad. I was Locomotive Fireman 3 years, Engine Inspector 1 year, Locomotive Engineer 9 years, Freight Conductor 3 years, Yard Master 2 years, Train Master 3 years, Superintendent of Terminals 2 years, Operating Vice-President 3 years. The last ten years of that time I have been engaged on the D. T. & I. Railroad.

[fol. 1283] I have a map of the Detroit, Toledo & Ironton Railroad which I would like to offer in this proceeding.

Mr. Fitzpatrick: We offer that as Exhibit No. 192.

(The map referred to was received in evidence, marked Exhibit No. 192, Witness Dilfill.)

Witness: This exhibit shows the route taken from one end of the road to the other, and the points are designated where we receive and deliver perishables. The circle is

at the points where we receive and the diamond is where we deliver.

I have prepared certain data for presentation in this proceeding. Perishables moving over the southern lines through Cincinnati, destined D. T. & I. delivery, are delivered to the D. T. & I. by the Pennsylvania Railroad at Springfield and South Charleston, Ohio. That moving through Springfield is handled on what is known as DC-8, and the schedule on this train is such that tonnage is restricted, due to the importance of arriving at Detroit to make the market and other railway connections for points beyond Detroit. In the past year and a half the time has been shortened approximately two and one-half hours, due to earlier closing hours at Detroit, and this train must run whether it has one car of perishables or 40.

That moving through South Charleston is handled on what is known as DJ-2. Account of South Charleston lying [fol. 1284] beyond the point where train is made up, it is necessary to back light engine Springfield to South Charleston, a distance of 10 miles, to pick up perishables set off by the Pennsylvania Railroad. This engine runs from South Charleston to Springfield with what perishables there may be, whether it is one or more, picks up a light tonnage train at Springfield and must arrive at Detroit in time for inspection at the Produce Terminal.

That moving via Toledo must be protected and it is frequently necessary running light engine from Detroit, 61 miles, or backing an engine up from Petersburg Junction with the main line, 22 miles, to handle.

That received from the C. & O. and N. & W., Greggs and Glen Jean, respectively, results in reducing tonnage to one cut over Summit Hill, as it takes one and one-half hours to double, resulting in following train to triple hill. Summit Hill is approximately 9 miles long, the maximum grade being 2 per cent. The tonnage is 900 tons for our class of engine, 53,000 tractive effort, and these trains, if there is no perishable moving, takes a double cut over the hill. If there is perishable that shows up at one of these junctions they must go with the single cut, resulting in a train following have to triple the hill. That train then proceeds with 900 tons from there on to Springfield. As stated before, all of these trains run with restricted tonnage and [fol. 1285] it is necessary to substitute other service to

handle the overflow which these two trains could handle if it were not for the importance of moving the perishables to destination in the quickest, safest possible time to make the market or connections. The percentage of the full tonnage will vary from 70 per cent to 50 per cent.

The D. T. & I. between South Charleston and Detroit crosses 32 interlocking plants and draw bridges, where we are frequently delayed account of other lines reaching plant first. This time must all be made up, another reason for restricted tonnage. Numerous cities and towns along the line have restricted speed. As these places are frequent and of more dense population, it requires extreme observance to comply with laws, city ordinances, etc., another source of delay making schedule.

During the winter months when the temperature is freezing and below, especially when freezing begins in the fall and ends in the spring, closer and more frequent inspections must be made to manipulate ventilation.

Account of these trains handling perishable commodities, they are given preference over other trains, including passenger trains, which frequently must take the siding and results in an additional delay to them.

Another feature in operating in the winter time is the additional cost in cleaning snow, ice, sleet, etc., from tracks, [fol. 1286] interlocking plants, telephone and telegraph wires, etc., to keep the line and communication clear at all times.

In addition to these transportation costs, another outstanding expense that the northern lines have, aside from the actual claim payments, is the cost of inspection and recoopering damaged packages. We pay an inspection bureau at Detroit twelve cents per package for recoopering. This is in addition to the $1.00 per car inspection service, and as I understand it, this entire expense of recoopering, inspection, etc., is borne by the delivering line.

As stated before, we have in this part of the country most unusual and unexpected changes in temperature which require constant supervision and frequent inspection of ventilating and heating devices, which tend to make the claim risks of northern lines extremely high, and quite naturally this responsibility rests with the northern lines and any failure on their part means that the claim costs must be paid by them and the southern lines assume no part

thereof. Any delay on these trains, no matter how slight they may be, caused by the D. T. & I., which results in the missing of the market or connections, often results in claims for market decline, which, of course, makes this company liable for the full amount if there is no delay with other carriers.

In the winter time our connecting lines demand earlier [fol. 1287] deliveries due to the ice conditions in the Detroit region, which interfere with the movement of the ferries handling carload shipments. This results in further reduction of tonnage in order that we may reduce our running time further in order that our connecting lines may make their schedules. Mentioning the Detroit region, the Detroit River, which the Wabash handles, our connections to Canadian points have frequent interruptions on account of ice conditions in the river. In the spring when the frost goes out of the ground, track upheavals are frequent, resulting in running at reduced speed, another condition which reduces the possibilities of making the market on time. Another annual event, usually in the spring, is the collapse of communicating lines, due to heavy sleet, which results in unavoidable delays.

Above are a few of the operating conditions which tend to increase the cost of handling perishables, despite the fact that the markets are the ruling factor and set the pace by extending or shortening their market hours at will, for their convenience.

In addition to these expenses, we also have an added expense of switching at Detroit in connection with cleaning of cars, which must, when returned, be placed on cleaning tracks for cleaning. There is also the cost of added police protection in the larger cities because of density of pop- [fol. 1288] ulation and the nature of the commodities handled.

Generally speaking, as I observe the car situation, ventilated cars were originally designed to handle fruits and vegetables in territories where these commodities would not be subject to freezing, but since these cars have been increased in use, extending more into the northern territories in the summer months on account of the increased demand for perishables in the north, it is only natural that such equipment is utilized more today than five to ten years ago.

The increase of refrigerator cars originating on southern lines may be due to an increase of perishable coming out of the south where the extreme hot weather very materially affects the condition of such perishable commodities.

I have prepared a statement showing tonnage from southeastern territory. That statement is taken from the citrus fruits and perishables moving from the southeastern territory only.

Mr. Fitzpatrick: We offer that as Exhibit No. 193.

(The statement referred to was received in evidence, marked Exhibit No. 193, Witness Dilfill.)

[fol. 1289] Cross-examination.

By Mr. Gwathmey:

I cannot tell you now where those 25 cars of oranges that were moved in September, 1930, on Exhibit 193, came from. It was taken from our records. I could not tell you whether they came from Florida.

F. P. Little, having been first duly sworn, testified as follows:

Examined by Mr. Fitzpatrick:

I live at Detroit, Michigan, and am Superintendent of Detroit Terminals of the Pere Marquette Railroad. I have been thirty-five years with the Pere Marquette Railroad, ranging from telegraph operator to my present position.

I have prepared certain data for presentation in this proceeding. The Pere Marquette Railway handles several hundred cars of Florida citrus fruits annually, mostly for the Detroit market where final deliveries or reconsignments are made through the Detroit Union Produce Terminal Company, which is a common facility provided especially for the handling of citrus fruit and other perishable commodities, having a capacity of about 900 cars, costing upward of $6,000,000 owned in equal shares by the Pere Mar-
[fol. 1290] quette, the Pennsylvania and the Wabash Railroads, as indicated on the maps filed as exhibit by Witness McSweeney.

This traffic comes to the Pere Marquette through the Toledo Gateway, largely from the Chesapeake & Ohio, the Baltimore & Ohio and the Big Four, where interchange with connecting lines is done by transfer runs operated between the various yards on regular schedules so arranged as to connect with the regular scheduled road trains. The handling of citrus and other perishables involved frequent operation of extra transfer runs and of maintaining a more frequent and rapid transfer road service than would otherwise be required.

Special handling in the way of switching operations at Detroit is also required in order to expedite the handling of such commodities, the marketing of which is so organized that cars must be placed for inspection and delivery at a very early morning hour.

At this produce terminal special attention is given to the matter of inspecting of the cars for ventilation and refrigeration. Preparations are made for re-icing when that is necessary and an inspection service of loaded cars is performed by the Moorehead Inspection Service.

Special service in the way of advance information on the movement of such cars is provided so that receivers may anticipate arrivals and arrange for reconsignments, and so [fol. 1291] forth.

Under existing conditions two scheduled daily trains between Toledo and Detroit would normally be required to handle the average volume of traffic, but another train is especially provided for the handling of citrus fruit, and so forth, daily except Sunday, operating frequently with as low as 50 per cent of its normal tonnage rating.

I have a statement showing the business handled by the Pere Marquette for the period ending May 31, 1931.

Mr. Fitzpatrick: We offer that as Exhibit No. 194.

(The statement referred to was received in evidence, marked Exhibit No. 194, Witness Little.)

C. A. Fisher, having been first duly sworn, testified as follows:

Examined by Mr. Wolfe:

I am employed by the Reading Railroad as Inspector of Transportation of the Reading lines. I have been with that

company 42 years as Clerk, Telegraph Operator, Dispatcher 15 years, Chief Dispatcher for 15 years and my present position for 5 years. I am now Inspector of Transportation.

Mr. Wolfe: At this point I would like to have identified [fol. 1292] two maps. First, the large white map which is the Reading Lines and, secondly, the map showing the terminal situation in Philadelphia, which is a blue print.

(The maps referred to were received in evidence, marked Exhibits Nos. 195 and 196, Witness Fisher.)

Witness: About two-thirds of the perishable products and citrus fruit which the Reading handles is received from the Baltimore & Ohio and other lines and delivered to other lines at junction points. On the map, Exhibit No. 195, the first red line to the left from Philadelphia to Newberry Junction at the extreme top indicates a distance of 197 miles from West Falls to Newberry Junction. At that point the Reading connects with the New York Central and the Erie Railroads. The second red line which connects with that line at Milton shows the connection with the Delaware, Lackawanna & Western Railroad at Rupert. At Allentown we connect with the Lehigh Valley and the Central Railroad of New Jersey; at Bethlehem we make delivery to the Lehigh Valley Railroad and the Central Railroad Company of New Jersey. On the red line extending toward New York we deliver to the New York Branch and to Trenton and to the Central Railroad Company of New Jersey at Bound Brook for delivery to New York Harbor.

In making deliveries to the South Jersey territory we move cars to Port Richmond, which is Philadelphia, and [fol. 1293] float them to Camden, at which point they are moved over the Atlantic City Railroad to Atlantic City and intermediate points.

I have a statement prepared showing the total amount of perishable product business, including citrus fruit, which is separated for the period from June, 1930, to May, 1931. That shows at what points it was received and to what destinations deliveries were made, the number of cars and the total. They are all received from the Baltimore & Ohio at Park Junction and from the Pennsylvania at Belmont.

During the period from June 1, 1930, to June 1, 1931, the Reading Company received 1,319 cars of citrus fruit from

the Baltimore & Ohio and 133 cars from the Pennsylvania, making a total of 1,452. In addition to that we received from the Baltimore & Ohio 2,246 cars of perishables.

(The statement referred to was received in evidence, marked Exhibit No. 197, Witness Fisher.)

That exhibit shows that 677 cars were delivered at Newberry Junction to the Erie Railroad and the New York Central. Citrus fruit shipments are received by the Reading Company from the Baltimore & Ohio Railroad on their train No. 84 due at Park Junction at 4 P. M., which arrives at Belmont about 4:15 P. M. Shipments are also received at this point from the Pennsylvania Railroad. The trains are delivered into the receiving yard for inspection, after [fol. 1294] which the yard engine breaks up the trains and classifies the cars into eleven different groups:

1. Local division points.

2. For points via New York Central Railroad via Newberry Junction.

3. For points via Erie Railroad via Newberry Junction.

4. For points via Delaware, Lackawanna & Western Railroad via Rupert.

5. For points via Central Railroad of New Jersey via Bethlehem, Pennsylvania.

6. For points via Lehigh Valley Railroad via Bethlehem.

7. For points via Lehigh Valley Railroad via Perkiomen Railroad and Allentown.

8. For points via Central Railroad of New Jersey, Perkiomen Railroad and Allentown.

9. For points via New York Branch and Trenton.

10. For points on Atlantic City Railroad via Port Richmond.

11. For terminal delivery in Philadelphia.

We do not make any deliveries to the Perishable Products Terminal in Philadelphia. It is all isolated delivery.

From June 1, 1930, to June 1, 1931, there were received

through this gateway 1452 cars of citrus fruit and 927 cars [fol. 1295] of other perishables. Approximately 777 cars of citrus fruit and 456 cars of other perishables moved via the long haul route, namely, Newberry Junction, a distance of 197.1 miles from West Falls, Philadelphia. This route is a particularly difficult one from an operating standpoint. There are four tunnels involved, from 800 feet to 8-10 of a mile in length, a gradually ascending river grade from Philadelphia to Port Clinton, a distance of 77 miles. The grade then increases to 1 percent from Port Clinton to Tamaqua, a distance of 20 miles, at which point engines and crews are changed. The average freight tonnage per train handled is 2600 tons. From Tamaqua to Buck Mount, a distance of 8.6 miles, the grade is 1.31 percent, and two additional heavy assisting engines are required on every train. In other words, every train that proceeds has to have in addition to the pulling engine two assisting engines.

A further very heavy grade of 2.54 percent is met from Gordon to Locust Summit, a distance of 5.7 miles, which requires two additional heavy Mallet type engines and in case the Mallet type engine is not available it requires two of what are known as 1-9 engines to assist these trains up the grade, and the return movement is light.

Via the same route and handling from Philadelphia to Tamaqua, at which point the engines and crews are changed there is a second route to Newberry Junction via the Cata- [fol. 1296] wissa Railroad. A train consisting of 2600 tons requires two additional heavy assisting engines from Tamaqua to Lofty, a distance of 12.1 miles over a grade of 1.54 percent. Thirty percent of the citrus and perishable traffic moves via this route. Due to the connection made with the Delaware, Lackawanna & Western Railroad at Rupert, a distance of 157 miles from Philadelphia, this route is used between Tamaqua and Newberry Junction for approximately 100 miles, and includes 67 miles of single track operation. The current of traffic on this division is southward, which interferes very much with the northbound movement of business. If you will just look at the map of the system, we handle our southbound business from Newberry Junction south to Tamaqua over what is known as the Catawissa Railroad for the southbound movement and the northbound movement goes via the Shamokin Division. The Catawissa Railroad is shown as that short branch connecting with the extreme red line on the left on my map.

The northbound movement moves via the Shamokin Division, which connects with the Catawissa Branch again at Milton. I might add there that this is a very expensive movement from the fact that when we do have the fast freight moving if we do not have sufficient trains for these heavy types of mountain engines to push up the grade they are paid their 8 hour day and they probably only make one [fol. 1297] or two pushes up the grade.

After cars are grouped at Belmont, cars for via Ruport, D. L. & W. and for Newberry Junction via New York Central and Erie Railroad, are moved by drag engines from Belmont to West Falls, 3.9 miles, at which point the cars are grouped in regular symbol trains with the assistance of switching engine.

On the next route that we handle most of the business there were 289 cars of citrus fruit and 411 cars of perishable fruit, total of 698 cars.

Cars for Allentown and beyond, a distance of 67.7 miles, are grouped at Belmont for the regular symbol train to pick up at that point, except in case the Baltimore & Ohio connection should be late and in that event the cars are moved from Belmont to West Falls via drag engine where they are grouped in a three symbol train with the assistance of the yard engine. These trains require an assisting engine for a distance of 14 miles over an average grade of .76 percent.

On arrival at Allentown, the cars for via Central Railroad of New Jersey are taken across the river and delivered to East Penn Yard. The cars for via Lehigh Valley Railroad are dropped at East Penn Junction and later moved by switch engine into the Lehigh Valley Railroad yard, a distance of about one-half mile from East Penn Junction. [fol. 1298] Cars for Reading Company local point delivery, which amount to 80 cars of citrus fruit and 478 cars of perishables. By local point Reading delivery, I mean any point on the system outside of Philadelphia. Cars for Reading Company local point delivery require drag service from Belmont to West Falls, at which point, with the assistance of a switch engine, the cars are grouped in a regular symbol train for movement to destination, where local switching placement is effected, including some instances, short branch movements.

Cars for Bethlehem, 56.6 miles from Erie Avenue, Phila-

delphia, and for Bethlehem for delivery to the Lehigh Valley Railroad and Central Railroad of New Jersey are moved from Belmont to Fairhill Junction and into Erie Avenue yard, at which point they are grouped into symbol trains. As this branch has a grade of slightly less than 1 percent, the M-1 or I-9 engine can only handle 1400 tons, which results very frequently in double heading the train. We have what is known as first PB-1; second PB-1 and third PB-3 out of Philadelphia, double-headed fast freight trains.

Between 7 and 8 o'clock in the evening and about on an average of 3 days a week we receive from 25 to 40 carloads of bananas in which event one of these trains, mostly the first PB-1, is doubled headed handling the banana shipments,

Cars for Trenton, New Jersey and the New York Branch [fol. 1299] are moved in drag service from Belmont to Fairhill Junction, and then to Erie Avenue yard, at which point they are clas to symbol trains or handled by district or traveling ifters to destination.

Cars for the Atlantic City Railroad move from Belmont by drag service to Port Richmond, Pennsylvania and are handled by the yard engine for placement on the floats and are delivered to the Atlantic City Railroad at Bulson Street, Camden, where they are switched and moved to destination in freight service. Those cars have to cross the river. Often times they have considerable trouble on account of the ice conditions and tide conditions.

The blue map shows the different colors covering the different routes and destinations in Philadelphia. Belmont is shown on the map as the beginning of the red line. When we receive a car for Newberry Junction we receive it at Belmont and move it out to West Falls at the end of the red line just to the north, at which point we build it into our through train. If you will follow the yellow line from Port Richmond coming up through Fairhill Junction, where we cross the New York Branch into Nicetown, where it goes into the city, up to West Falls, at which point we break up the train and with the assistance of switch engines we build the cars into our fast freight symbol trains and the groups in which they belong. It then proceeds along the [fol. 1300] heavy brown line toward Newberry Junction. We do all of our switching and cutting in and out at West Falls.

If a shipment is to be cut out for Bethlehem we take it over to Fairhill Junction. We take it from Belmont to West Falls, then the black line through Nicetown over to Fairhill Junction and then up over the grade into Erie Avenue. That is the end of the black line.

When we receive shipments for delivery to the Lehigh Valley Railroad and the Central Railroad of New Jersey at Allentown, we receive the shipments at Belmont, move them over to West Falls by drag service and then follow that line that is shown by the brown hatched line beyond Norristown, clean up to the right-hand corner, about 6 miles beyond Norristown to the Perkiomen Junction where we move over the Central Railroad of New Jersey.

Shipments received at Philadelphia for delivery on the New York Branch are moved from Belmont to Norristown, following the black line to Fairhill Junction, out of Indiana Avenue and then made up into single trains moving out on the brown line or the other line where we make delivery to the Lehigh Valley Railroad or the Central Railroad of New Jersey. In going to New York, instead of going out on the dotted brown line you go out on the line on the New York Branch to West Trenton, 49 miles, and then into Trenton, 6 miles.

[fol. 1301] Drag service takes cars moving to points in South Jersey from Belmont over through Nicetown, Fairhill and, following the yellow line down to Port Richmond where the floats are, and there the cars are placed on the floats, floated across to Camden where they are pulled into freight train movement to Atlantic City or intermediate points.

I have stated that this passing freight traffic which is destined to other railroads constitutes two-thirds of the traffic that is handled by the Reading in citrus fruit products. The other one-third of the traffic is isolated business from different points around Philadelphia to points on the system such as Reading, Harrisburg, Pottsville and Allentown.

The switching movements at Philadelphia are very difficult, depending on where the delivery is being made.

Cars for local Philadelphia points delivery are handled by terminal and district switching and are moved from Belmont to Fairhill Junction, from which point it requires

a 6-wheel locomotive to handle the cars to Montgomery Avenue. From this point they must be handled by a lighter locomotive, which is known as a 4-wheel shifter, to destination. This movement is made into a very congested and densely populated territory, necessitating sending a flagman in advance for a distance of 1½ miles to protect fifteen grade crossings. They have a watchman at the crossings, [fol. 1302] but there is a city ordinance there, on account of the trucks and different vehicles using the street. Part of this track is on the street and we are often held up anywhere from 15 minutes to an hour or an hour and a half by trucks up against some building, loading or unloading, so we can not get away, and in many cases we have to get the assistance of an officer to get away. There are many interruptions there. We have to work our way through the best we can. It is particularly important to call your attention to the fact that the density of traffic between Belmont and Fairhill Junction, a distance of 7.23 miles, is very great, including in addition to Reading Company traffic, 11 high speed through B. & O. first class trains operating in each direction between Washington and Jersey City; also 10 B. & O. fast freight symbol trains through this territory. In connection with the ten B. & O. fast freight symbol trains, I might add that this includes the advance section of B. & O. train No. 68 that Mr. Ward of the B. & O. referred to this morning, which they are operating from Park Junction, through, in 25 minutes. We continue this to Bound Brook, New Jersey, at which point it is delivered to the Central Railroad of New Jersey, and our running time is 2 hours including one water stop, a distance of 60 miles, and that is getting the regular schedule of our track one [fol. 1303] way. This is possible for the reason that we are handling only between ten and fourteen hundred tons on the train due to being a high type citrus fruit and very perishable commodities. Ordinarily, the tonnage for the train is 3,200.

In cases where citrus fruit shipments reach Reading Company on Sunday for points on the Philadelphia and New York Divisions, a day on which symbol train service is not operated, it is frequently necessary to handle such cars in connection with our regular passenger service, which requires special movement of the cars to get them into these trains.

We are lucky in handling a good bit of the citrus fruit as an entire division. It is mostly trackage handling, and we have got to move it as soon as we get it; we have got to make good time for it, because the connecting lines are after us—they have got a market time delivery to make and we have to move it promptly; therefore, on holidays or other days when we get a straight car, we are obliged to call out a crew and get service all the way probably from Philadelphia to Newberry Junction, a distance over which we would not operate just at that time. However, we will try to get full tonnage if possible in filling the train out. In saying that we would not operate at that time, I mean we try to operate a straight train from the terminal over the mountainous part of the railroad, at a time when we can use [fol. 1304] the easiest power in operating over that mountain, and in that way we may get thrown off of our schedule.

I have a statement showing switching distances in the City of Philadelphia of various symbol trains, the pusher engines required and some additional data.

Mr. Wolfe: Mr. Examiner, I submit this.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 198, Witness Fisher.)

Witness: The speed given there includes terminal delays. We build into these trains anywhere from two to six points along the line, and that time is included in the average speed from the time from Philadelphia to Newberry Junction or Allentown. It does not show the speed limit as being very fast, but our trains do operate 40 to 50 miles an hour at some points. We are operating over a very hard grade and that takes time, to cut into the trains and take them out.

We have numerous other items of expense which enter into the handling of citrus fruit shipments, such as special inspection, telegraphing instruction as to handling, emergency icing, and so forth. We don't ice these cars very often, but in the case of an emergency, we must ice the cars, and of course, from November to April 1st, we have slipping conditions and snow which makes it somewhat [fol. 1305] expensive operating on the grades, and naturally the tonnage must be cut to make the time delivery to our connections on all shipments, and sometimes we have to double-head the train.

J. O. BELL, having been first duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am Superintendent of Transportation of the Chicago & Eastern Illinois Railroad. I entered the service of the C. & E. I. in 1905 as General Yard Master, was made Train Master in 1906, Superintendent in 1910 and have been Division Superintendent on the several divisions until 1927, when I was placed in my present position. Prior to going with the C. & E. I, I had experience as Train Dispatcher, Chief Train Dispatcher, Train Master, and so forth.

I am familiar with the manner in which the C. & E. I. handles southern perishables, including citrus. The greater proportion of citrus and other perishable fruit from Florida and other points comes to us at Evansville, Indiana, at the Ohio River gateway. We receive some from river crossings at Thebes, Illinois, from the Frisco, the Cotton Belt and the Missouri Pacific at that gateway. We also receive some from the Mobile & Ohio at Tamms, Illinois. [fol. 1306] Our connection at Evansville is with the Louisville & Nashville.

We have a small map on a condensed profile blue print which shows the several gateways in connecting points.

Mr. Eshelman: We ask that that be received as the next exhibit.

(Thereupon the document referred to was received in evidence, marked Exhibit No. 199, Witness Bell.)

Witness: We have another exhibit which gives the tractive effort, the grades, ton ratings, northward and southward, and also shows the ruling grade, maximum grade, maximum curvature with location, weight of rail and type of ballast and this includes the types of engines that we have in service.

Mr. Eshelman: We ask that that be received as Exhibit No. 200.

(Thereupon the document referred to was received in evidence, marked Exhibit No. 200, Witness Bell.)

Witness: In that list of engines is shown the Mikado type of locomotives, Nos. 1900 to 1959, which is the type of en-

gine we use in road movement of citrus fruit and other perishable business coming from connections. The tonnage rating for that particular type is shown in this exhibit by districts.

The direction of the loaded movement on the C. & E. I. [fol. 1307] is northward to a substantial extent. There is considerable preponderance northward. That business is a combination of light-weight traffic and coal, with the result that our southward movement is largely of empty coal cars and empty cars that have hauled the northward business of such citrus fruit which would be refrigerator, at the present time, and ventilated box cars. The northward movement of perishables loaded would be in the direction of the loaded movement and the balance, or the empty movement of the refrigerators would be in the direction of the empty movement. We do not consider that to be well balanced traffic. Fully 90 percent of refrigerators that move northward under load are returned empty and my offhand opinion is that it will exceed that percentage.

From Evansville departure yard to arrival in Chicago, Thirty-third Street City Yard, we have 36 grade crossings, not including the several crossings north of Englewood in the City of Chicago terminal proper. All but seven of those crossings are protected by interlocking devices. The expense of maintaining the interlocking service is borne jointly; in some cases on a fifty-fifty basis; in others on a unit basis. Generally speaking, the using lines would contribute to the maintenance.

In Chicago we have our own team track at 26th Street and Canal Street and we deliver to the Chicago Produce [fol. 1308] Terminal citrus, vegetables, and some perishable commodities. To reach the Chicago Produce Terminal we use the rails of the Chicago Junction Railway from our city yard to the Chicago Produce Terminal yard, making delivery with our own power and crew. The trackage expense is $1 per car in each direction. The Chicago Produce Terminal charge is covered by tariff which is $12 for placement on our inspection track and $15 for placement on our team track or at the auction house. Citrus fruit is usually handled at the auction house.

We do not have a full train load of perishables from the south to go to the Chicago Produce Terminal every day. We operate our schedule through from Evansville to Chi-

cago whether we have one car or 40 and make delivery to the Chicago Produce Terminal of 1 car or more. Delivery must be made at the Chicago Produce Terminal by 4 A. M. That is the dead line for morning market.

After leaving our 33rd Street Yard in going to the Chicago Produce Terminal we have to cross several railroads at grades and use the rails of other roads and the Chicago Junction Railway in the early hours is the Union Stock Yards route and it is frequently quite heavily congested so that we have delays that cannot be foreseen and which will not occur every day but which will on some days be quite serious.

About 1920 or 1921 the traffic came to us from the Evans- [fol. 1309] ville Gateway around 8:30 or 9 P. M. and we established what we called a citrus special to leave Evansville at 11:30 P. M. We arrange our schedule to arrive at our outer train yard, at Haney, Chicago, at 6 P. M., as we could not, of course, reach the next morning market by leaving Evansville at 11:30 P. M. This accomplished delivery to the Chicago Produce Terminal around 11 o'clock P. M. which, at that time, was the requirement for auction house placement. Later, conditions changed, and we established a train that we programmed to leave Evansville at 6 A. M., to handle deliveries that could not reach us before midnight. That train was placed on the program to arrive at Haney, our outer yard, as at 10 P. M., which gave us one hour to reach the 11 o'clock P. M. delivery requirement, and we still had until the 4 A. M. dead line for early morning placement.

Last year the program was set so that the citrus and other similar products would reach Evansville on the Louisville & Nashville at 10:45 A. M. and would be delivered to us by 12 o'clock noon. I think we set back our Dixie Red Ball Emergency run to leave Evansville at 1 o'clock P. M., instead of 11:40 A. M., and we shortened our running time. We formerly reached our 33rd Street Yards at 3:40 A. M., but on the new schedule we arrived at 2 A. M., which gives us 2 hours to accomplish delivery at the Chicago Produce [fol. 1310] Terminal by 4 A. M. On the first arrangement the elapsed time from 11:30 P. M. to arrival at our other yard at 6 P. M., and delivery to the Chicago Produce Terminal by around 11 P. M. we had approximately 24 hours for that run. On the later program, leaving Evansville at 6

A. M. to arrive at 10 P. M. and delivery by 11, we had the difference in that departure up to 11 P. M. and we had 20 hours from 6 A. M. to 4 A. M., to accomplish the early morning delivery.

Now, we have 13 hours running time to our city yard, or 15 hours, from 1 P. M. to 4 A. M., to accomplish delivery into the produce terminal yard. The present schedule, from the time it leaves Evansville, in which delivery in the Chicago Produce Terminal Yard is made, is only 15 hours which includes 2 hours for that present run. The deliveries come to us now by noon at Evansville and we endeavor to get out our program by 1 o'clock. We do not always accomplish that. So, our terminal time, from the program time of delivery into the C. & E. I. yard, to our departure, has been shortened about one hour against our former practice. While I cannot speak for any other line, I understand that it is also the practice with the final line or the final division on any line that it shall have the slower and more flexible schedule to have an opportunity to make up time or delays that may have been encountered from the initial or intermediate lines. That is true in the case of passenger serv- [fol. 1311] ice and it is true on our own line.

My previous statement will illustrate when we could leave Evansville at 6 A. M. and accomplish arrival in Chicago and delivery to the Chicago Produce Terminal Yard at 4 A. M. the next morning it gave us 20 hours. Today we leave at 1 P. M. and accomplish the same delivery or a difference of 7 hours in elapsed time from the time of actually leaving to the actual delivery in the Chicago Produce Terminal.

Readjustments or revisions of schedules are usually made by conference with operating officials. I attended the conference at Chicago at which this last revision was accomplished. The present arrangement is one which was agreed on by the various lines interested. I could not say specifically whether that agreement was in view of the various requirements of the several lines, but I know they built the schedule up to arrive at Evansville at a certain hour and to arrive in Chicago at a certain hour and it was up to me to get to Chicago at the dead line and I met the competition to do that. The program was set up to accomplish fourth morning arrival in Chicago and to accomplish delivery for the fourth morning delivery at Chicago we must

arrive there at a stipulated hour. I put all the facts before the conference as to our situation and other lines did the same. The final result was that they would bring the traffic [fol. 1312] to us at a certain hour. We said we would do that if they would give it to us at a certain time. My impression of the conference was that these schedules were arrived at by the combined adjustment of the operating men who participated in them and that the result was satisfactory to all.

Our schedule leaving Evansville at 1 P. M., under the present program, reduces the loading to approximately 70 or 75 percent of the engine rating, depending on the time of leaving. If he is late we reduce his loading accordingly.

A. W. GEARY, SR., having been first duly sworn, testified as follows:

Examined by Mr. Eshelman:

At the present time I am head Claim Clerk of the Pennsylvania Railroad. I was employed by the Pennsylvania Railroad in September, 1891. I have been with them continuously since. I have been practically in the produce end of it since I was employed. I am thoroughly familiar with the manner in which the southern perishables, including citrus fruits, are handled in the Philadelphia terminal.

In 1908 we were located on the west side of the Schuylkill River between 29th and 30th Streets and from Market [fol. 1313] to Chestnut. There was a capacity at that point of about 80 team track cars. There were three small depots and the total capacity of the three was about 225 cars. There has been a substantial change in the facilities. In July of 1927 there was built a terminal known as the Pennsylvania Produce Terminal. That is located on Oregon Avenue east of Delaware Avenue. It consists of 29 tracks and three depots. Two of the depots are 800 feet long and 110 feet wide. The capacity for depot cars is about 300; that is, we can unload about 300 cars at one time or place them so they can be unloaded on the three depots. The building is about 500 feet long and that is due to the fact that a cold storage which was built took off about 300 feet. The capacity of that cold storage plant is about 200 cars.

Platform A has two auction rooms on the second floor

and one is a little larger than the other and will seat about 250 and the other about 150. There are all conveniences for carrying on a perishable business, including a restaurant on both floors. Platform A is used exclusively by the auction company. This terminal is also described to some extent in the testimony of Witness Menaugh and in the booklet which he introduced as to the New York Terminal.

Cleaning is a big proposition. The cleaning costs us between $3,000 and $3,500 a month. That means cleaning of the cars, depot and yards and, as I said, there are 29 [fol. 1314] tracks, each of them holding about 35 cars. The station is about one-quarter of a mile long.

In 1908 we did not do any careful cleaning. We had to clean the yards, of course, but the traffic did not amount to anything like it is today and therefore it was not nearly as big a job. At that time we never heard of such a thing as passing reports given to the Philadelphia produce trade.

I have not been agent at the Philadelphia Produce Terminal. I was second to the agent, in charge of the perishables department.

In 1908 reconsignments averaged about 3 a day; that is, in 300 working days it would amount to about 900 cars. At the present time we reconsign 900 cars and divert 800 or a total of 1700. That means two additional clerks. In 1908 there was really no inspection provided. If we got a protest, a delivery clerk in the yard made the examination and that is all the inspections that were made. At the present time we have what is known as a Morehead Inspection Bureau and until two months ago they inspected the protested cars, but at the present time they are inspecting every car that comes in.

In 1908 the carriers kept no vent records. In fact, up until a few years ago, say 5 years ago, it was not necessary. Then due to complaints from consignees, particularly on [fol. 1315] the weather or the water where they claim the vents were defective in some way so that they were an inch closed or two inches not open or something like that, we had to keep a record and that made additional labor.

In addition to the arrival notice we are required to make up what is known as a placement sheet. These sheets are made up for each and every receiver individually. They show the car number and initial, the commodity and track location. We did not do that in 1908. We now make a

commodity report. That is a sheet showing each and every commodity on hand, the number of cars and whether the commodities are new or old. For instance, if the seasons overlap and we have old potatoes or cabbage, and things of that kind. We are also required to record, and notify, certificates of beneficial ownership which never was heard of until a few years ago. They are a notice to us that the beneficial consignee is someone other than the receiver. That is in the event of freight bills not being correctly rendered and if we want to change them they will not be responsible for the additional amount.

In 1908 we did not admit the delay unless it was 5 or 6 hours. The markets were not like they are today. They did not vary. The market today is liable to jump from $2.50 to $5.00 and we very seldom got a claim. In 1908 we had a policeman who worked in a certain district, within [fol. 1316] possibly a mile. He used to walk to and fro in the district and that is all the policing we thought was required. He was a part time watchman. At the present time the policing of our terminal costs over $20,000 last year.

I heard the testimony of Witness Ward this morning about the Philadelphia Produce Terminal location of the Baltimore & Ohio. Prior to 1908 the Baltimore & Ohio terminal for citrus fruit was Pier 12 and the Pennsylvania Railroad was at Pier 13. There was only one auction company in Philadelphia at the time and it was located on Philadelphia Street between Rose and Vine and I imagine that was the reason for the citrus fruit going up into that section. That was also the part of the city where the trade had their places of business and where it was convenient for them to transact business. It covered from 500 south to 800 north Vine Street, so it was practically in the center. Pier 12 was established before my time and the Pennsylvania Railroad was there located next door. How long they were there I do not know. I do not know whether the Pennsylvania Railroad built into Baltimore before the Baltimore & Ohio Railroad built into Philadelphia.

Cross-examination.

By Mr. Gwathmey:

In cleaning a car of citrus fruit that comes into Phila- [fol. 1317] delphia we have to sweep the car out. We have

to take all the wood out of it and clean it thoroughly before it is returned. Citrus fruit is possibly a cleaner commodity than some of the others but they are stripped in layers and those boxes are all thrown in the car and we have to take them out and burn them. During the Mediterranean fly epidemic we were compelled to clean every car and even had to use whisk brooms. Those costs of service are not charged back against the southern lines. They are all absorbed. We do not charge to the southern lines any part of the cost of recoopering cars.

There has been a considerable increase in the number of reconsignments since 1908 and there has also been a considerable increase in the number of shipments. I don't think the increase in the number of consignments equals the percentage of the actual number of cars reconsigned. In other words, we had about 900 in a year and now we are getting about 1,700 in a month. We make a charge for every one of those reconsignments.

When there is delay the liability for such delay depends entirely upon where it occurs.

[fol. 1318] H. M. KENDALL, having been previously sworn, was recalled and further testified on direct examination as follows:

Examined by Mr. Gwathmey:

I offer as an exhibit a statement showing the ownership of our ventilated box cars by years, as of June 30, 1908, up to June 30, 1916, then starting at the fiscal year 1917 to 1930.

Mr. Gwathmey: We offer that as exhibit No. 201.

(The document referred to was received in evidence, marked Exhibit No. 201, Witness Kendall).

Witness: I would like to add in this connection that there will be noticed a drop of approximately 2000 cars from 1927 to 1928 seasons. That is due to the fact that we have taken them out of our accounting, in one account, but not in another. That is our ventilated box cars or wooden cars. As a matter of fact, we only have approximately 600 of those cars in service. They are not used in any

of our freight trains and only to some extent in local trains, only for cotton, and thing of that sort.

The next statement is a statement showing freight train car ownership as of April 1, 1931.

Mr. Gwathmey: We ask that this be received as Exhibit No. 202.

(The document was received in evidence marked Ex-
[fol. 1319] hibit No. 202, Witness Kendall).

Witness: The first item shows the ventilated box cars at the present time. There may be a few cars that have been destroyed by fire but it won't amount to over 30 cars.

By Mr. Eshelman:

When I said "wooden construction" I meant wooden under-frame cars. Our vents are mainly steel under-frame cars.

By Examiner Hosmer:

I would like to refer to sheet 317, the first line, which shows a distance in the record from Richmond to Jersey City of approximately 33 miles. That should read "333 miles."

A. H. FAIRFIELD, having been first duly sworn, testified as follows:

Examined by Mr. Boynton:

I am Operating Commerce Assistant of the New Haven Railroad, reporting to the Vice-President and General Manager, with headquarters at New Haven, Connecticut. My experience covers 18 years in the Operating Department, including work in the yard, at different stations, [fol. 1320] Chief Clerk to Superintendent, Chief Transportation Clerk to the General Superintendent, Division Accountant, Statistician under the General Manager and other jobs.

I am familiar with the handling of citrus fruit traffic over the New Haven Railroad. I have prepared a series of exhibits which I wish to introduce in connection with the testimony which I will give. They are true and correct to the best of my knowledge and belief.

Mr. Boynton: May it be understood, Mr. Examiner, that throughout his testimony where reference is made to the New Haven or New Haven Railroad, the New York, New Haven & Hartford Railroad is the carrier indicated?

Examiner Hosmer: Yes, sir.

Witness: I have prepared a statement showing the seasonal movement of citrus fruit over the New Haven Railwhich I offer as an exhibit.

(The document referred to was received in evidence, marked Exhibit No. 203, Witness Fairfield).

This exhibit, No. 203, is a statement showing the number of carloads of fruits and vegetables received from connecting carriers by the New Haven Railroad during the twelve months ending March 31, 1931. During this period we received 7229 carloads of citrus fruit, which was 10.2 percent of the total receipts of fruits and vegetables. The lightest [fol. 1321] month's receipts of citrus fruit was September with 121 cars and the highest was March with 942 or over seven times that of the low month. The heaviest receipts are during the five months November to March and the light receipts April to October. Attention is called to this fluctuation because in later statements I have used the month of February as representative of the heavy months and the month of May as representative of the light months.

I have prepared a map of the New Haven, showing the gateways through which the citrus traffic is received. I offer that as Exhibit No. 204.

(The document referred to was received in evidence, marked Exhibit No. 204, Witness Fairfield).

This exhibit, No. 204, is a map of the New Haven Railroad. The citrus fruit originating on the southern railroads is received by us through our Harlem River Gateway marked "A" on the exhibit, in the extreme left-hand corner. I wish to call attention at this time to the network of crisscross and intersecting lines that make up the New Haven Railroad.

I have a statement of the citrus fruit traffic received through the Harlem River Gateway, as compared with other gateways and I offer it, as Exhibit No. 205.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 205, Witness Fairfield).

This exhibit, No. 205, is a statement of carloads of [fol. 1322] citrus fruit and other fruits and vegetables received by the New Haven from connecting carriers during the months of May 1930 and February 1931. The first grouping shows total receipts of fruits and vegetables on the New Haven via all gateways. The second group shows the fruits and vegetables received via the Harlem River gateway. The third group shows the percentage of Harlem River gateway receipts—79.4 percent of the citrus fruit was received via this gateway. The fourth group shows that 79.7 percent of the citrus fruit received via the Harlem River gateway originated on four southern roads as listed. Percentages are shown separately for other fruits and vegetables and also for each of the two representative months.

There is a material fluctuation in our receipts of citrus fruit from day to day and from hour to hour. The February 1931 daily average receipts of citrus was 21 cars; the low day on the 17th with no cars and the high day, Sunday, February 15th, with 58 cars. In May 1930 we received citrus fruit on 17 days of the 31. The highest day's receipts were 17 cars. Receipts of the fruits and vegetables are scattered through all of the 24 hours of the day.

I offer as an exhibit one sheet of 8 photographic views of New York yards, floating equipment and the Hell Gate rail route.

(Thereupon, the document referred to was received in [fol. 1323] evidence, marked Exhibit No. 206, Witness Fairfield).

My next exhibit is No. 207.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 207, Witness Fairfield).

This exhibit, No. 207, is a map of New York and vicinity showing connections to the New York, New Haven & Hartford Railroad. There is no all-rail connection between the New Haven and our Jersey connections. The interchange of traffic is made with the Pennsylvania over the route marked (1) via floats and tugs from the Pennsylvania Greenville bridges to the Long Island float bridges at Bay Ridge, 3.5 miles across the upper bay, thence via rail over the Long Island tracks and the New York Connecting Railroad to the Oak Point yard of the New Haven's Harlem

River Terminal, a rail haul distance of 20 miles. New Haven crews and locomotives move these cars between Bay Ridge and Oak Point, operating over the Long Island under trackage agreement. The interchange routes with the Lehigh Valley and Central New Jersey are marked 2-A and 2-B on the map to the right of Greenville, cars being floated from the C. N. J. and Lehigh Valley float bridges across the harbor at the lower end of Manhattan and then follow the route marked 2 up the East River to the New Haven float bridges at Oak Point Yard, a distance of 11.5 miles. Prior to the construction of the Hell Gate Bridge route in [fol. 1324] 1918, the Pennsylvania Railroad traffic was floated from Greenville bridges up through the East River to our Oak Point bridges, a distance of 14.5 miles. The Hell Gate bridge was constructed jointly by the New Haven and the Pennsylvania at a cost of approximately $30,000,000.

The interchange made via water is a much more complicated and expensive operation than an interchange effected by land. On a land interchange one road will bring its train into a yard and set it out on interchange tracks constructed for that purpose and the other carrier will move these cars off the interchange tracks on to its railroad.

In the case of the New Haven interchange on the westward movement, the trains are brought into Oak Point yard and cars classified for the different routes. Lehigh Valley's and Central New Jersey's are loaded on to floats at Oak Point and the Pennsylvania Railroad's are moved to Bay Ridge and loaded on to floats. The eastward movement is handled similarly in the opposite direction. The New Haven performs the floating service and operates a fleet of 16 tugs and 70 car floats in its interchange and pier float operations. The interchange tugs are of 1,000 to 1,200 horse power and the steel floats, having capacity of 20 to 22 cars each, are approximately 300 feet long. These floats are moored into electric float bridges, bridge aprons and platforms adjusted to meet the varying tide conditions, and the [fol. 1325] cars are then switched over the float bridges in several cuts. There are three tracks on each float, the outside tracks holding on an average seven cars each and the center track six cars. The loading of floats is difficult and slow because there is the hazard of knocking the float off the keys, because of the number of cuts of cars to be made,

and further because of the exactness with which each cut of cars must be pushed flush against the bumping posts on the float without heavy impact. Our float yard switching crews are well drilled but because of the complexities of the operation accidents occur more frequently in this type of switching than on land.

The unloading and loading of floats averages about one and one-half hours per float. Floats are moved in pairs, lashed to the tug in the center. The time consumed on the water between Oak Point and the Jersey float bridges varies from one to two hours, depending upon tide conditions. The time between Greenville and Bay Ridge averages about 40 minutes. Our tugs and floats are manned by a captain, engineer, oiler, firemen, first deckhand, second deckhand and two floatmen, the wages per hour being 40 percent more than that of a five man switching crew. The floating operations necessitate an entirely separate organization. In addition to the tug and float crews named, we have float bridgemen, bridgemasters, chock and chainmen, float and tug repairmen and mechanics, marine clerks, supervisors, [fol. 1326] etc. Fogs, storms, ice and heavy winds at times have a serious effect on our interchange operations.

In one round trip of floating service we have a marine crew of seven men one and one-half hours on the water in each direction and tied up idle at each terminal one and one-half hours, while the yard switching crew unloads and loads the floats, or a total of approximately six hours in the cycle, and, in addition, a five-man yard crew loading and unloading floats for one hour at each float yard terminal or a total of six hours of a seven man crew and two hours of a five man crew, and these crews and equipment have moved 40 cars each way, a distance of 12 miles. If the movement were citrus, there would be 40 loads one way and 40 empty the other.

In contrasting a rail interchange and a float interchange it is also necessary to consider the complexities of the land switching in Oak Point Yard itself. Oak Point is hemmed in by the water and the industrial and residential district of the Bronx. It is a combined floating and rail interchange yard. The tracks for classifying and making up of trains in front of the float bridges have a capacity of but 20 cars each, which necessitate rehandling of cars and doubling of cars over on two or more tracks in making up outward

trains and in breaking up inbound trains. The desirable [fol. 1327] modern interchange yard is built with separate receiving tracks of 100 or more car capacity each, separate hump yards for eastward and westward classifications, adequate classification tracks and separate forwarding yards with tracks of 100 or more capacity. There is no room to make such a yard at Oak Point and in order to meet the present day demands for expedited service we are required to spend more switching effort in producing transportation in this yard than roads that do not have this geographical handicap.

The operation of this yard is also affected by the commuter service in and out of Grand Central Terminal. The freight movement eastward from Oak Point joins the passenger route from Grand Central at New Rochelle, ten miles east of Oak Point. We carried 16,900,000 passengers in and out of Grand Central Terminal in the year 1930. There are 196 regular passenger trains moving daily through the interlocking towers at New Rochelle and over the same tracks handling the freight service. New Rochelle is a crossing at grade. This total movement of 196 passenger trains and an average of 48 freight trains daily means that there is a movement of either a passenger train or a freight train over this route every six minutes in the day. This count of movements is understated in that work trains, light engines, special trains and sections of passenger trains are not included.

During the heavy inbound commuting hours, 7 to 9 A. M., [fol. 1328] the passenger trains, excluding light engines and deadhead moves, pass at the rate of one every 3.4 minutes and from 5 to 7 P. M. outbound passenger trains are spaced at average intervals of one every 3.2 minutes.

The Harlem River route, particularly from New Rochelle, New York, to New Haven, Connecticut, sixty miles, requires the use of one of the heaviest traveled passenger lines in the United States. The movement of passenger trains is so intensive during the morning and evening hours that freight trains are held back in the terminals until the peak periods are over. Oak Point yard must hold up such cars as have been classified and made ready for eastbound movement until these two peak passenger periods are over.

As previously referred to, the movement of this traffic

east from Bay Ridge is made by New Haven crews and locomotives over the electrified zone of the Long Island and the New York Connecting Railroad, a distance of 20 miles, to our Oak Point Yard. At this point cars are set out for Harlem River proper and for points local to the New York Division. Other traffic that comes to us at Oak Point from the Lehigh Valley and Central of New Jersey is consolidated into the various trains. Due to the terminal and diverging route characteristics of the New Haven, a large number of classifications are necessary because of the traffic branching off at the various intersection points. Leaving [fol. 1329] Oak Point the first diversion from the main line is at South Norwalk, Connecticut, for the Berkshire route, next at Bridgeport, Connecticut, for the Waterbury and Winsted route, next at New Haven, which is the main hub, the traffic splits to five general routes, next to New London, Connecticut, for the Worcester route and the Central Vermont Railroad, and then at Providence, Rhode Island, which is the hub of the east end of the road, the traffic separates to seven different routes. Each of these lines branching off the main line have other junction points and lines extending in various directions, as is shown on my map exhibit. That traffic which moves over the Shore Line Division is over our four track electrified zone from Oak Point to New Haven, 70 miles, and from New Haven to Boston over double track steam operated route, a distance of 155 miles.

We have never had a solid train of fruits and perishables on the New Haven and it moves in various trains to various destinations throughout the 24 hours of the day. This is due to the three factors, first, because this traffic comes to us during all hours of the day; second, the float service and train service must be coordinated to keep the float bridge yards open, and, third, because our transportation conditions do not permit us to switch out and hold so-called slow freight for heavy slow moving freight trains.

In February, 1931, out of Harlem River, 107 trains [fol. 1330] which handled the bulk of the perishables averaged 12 cars of fruit and vegetables per train, of which 5.5 cars per train were citrus. In May, 1930, 116 trains handled 15 cars of fruit and vegetables per train and .5 cars per train of citrus, these trains also moving various classes of other freight. Boston received 152 trains handling perishables during February, 1931, with 7.2 fruit and vegetable

cars per train, of which 2.4 cars per train were citrus fruit. During May, 1930, 226 trains arrived with an average of nine cars of citrus fruits and vegetables per train and there were but 75 cars of citrus fruit split in the 226 trains. Testimony has been introduced as to the special and expedited services rendered by the Southern lines in handling this traffic and our services on the New Haven is very similar in many respects.

Our mechanical forces specialize in the inspection and treatment of journals in this traffic to insure continuous and prompt movement to destinations or break-up yard. We give special attention to repairing cars shopped for defects. On a train containing perishables leaving the gateway or leaving the various break-up yards we put eight to ten car inspectors on the train so that a thorough inspection is made in the quickest time possible, the force on a perishable train being doubled, and this slows up other trains. If a car is set out the inspection force is called and if there is no [fol. 1331] regular train service available a crew is called to move car to destination.

We also specialize on the switching of the traffic at the gateway, at intermediate points, and at the final destination. Perishable cars are the first classified at all points and at many points on the road the road crews instead of regular switching crews place the cars early in the morning. Placement of other traffic is made by yard crews when they report at 7 A. M. but the fruit and vegetable dealers demand and get placement before this time.

The Southern railroads speak of the cleaning of cars. The cleaning of cars is an important item at our various cities. At Harlem River we contract with a concern to remove refuse outside of the city. At Boston we have a special truck and force of cleaners to dispose of the refuse. At New Haven, Providence and other points the rubbish is cleaned up by work trains or switchers and moved outside the city and dumped.

Similarly to the Southern lines, we have our troubles with diversion orders. During February, 1931, we diverted 361 cars of fruit and vegetables from the larger points on the road; 233 of these or 64% were citrus fruits. Where the sale of fruits and vegetables has been held up due to a surplus in the market and diversion orders given we are held strictly to making an expedited move in getting the cars to

[fol. 1332] the central yard and forwarding to the changed destination.

As a terminal railroad we do the accounting and bookkeeping work for the originating and intermediate carriers on all OS&D work, all claims, collections, etc. We are the clearing house for claims on traffic due to loss or damage or to failure to make the market and the expense incurred by our various departments cannot be passed back to other carriers. In addition, we have special forces of perishable inspectors to watch and check the condition of the fruits and vegetables on arrival and before disposal.

With regard to testimony presented as to reductions made in tonnage of perishable trains to maintain fast schedules and effect prompt deliveries, an analysis of February, 1931, shows that our fast freight trains over the Shore Line route handled but 75.2 percent of the tonnage handled by the slow freight trains over this same territory.

That is an actual figure. That is not a hypothetical rating. It is actual tonnage handled.

A further analysis of the trains handling the largest part of the perishable traffic shows an average time on the road from terminal to terminal of 18.1 miles per hour. However, deducting the intermediate terminal time setting out and picking up cars, the running time is 21.0 miles per hour. This schedule is comparable to that of the Southern lines and, in addition, we have slow orders for 10 drawbridges, [fol. 1333] slow speed over the Hell Gate route and through congested areas and a heavy passenger train interference.

Our heavy density passenger service on our Shore Line route has a very definite influence on our freight train schedules. We operate 38 through passenger trains between New York and Boston, 26 of which run over the Shore Line route. We have made a special study covering a 52 mile section of this route from New Haven, Conn., to Midway, Conn. The scheduled running time of our through passenger trains is one hour 13 minutes. Practically all freight trains are therefore required to enter a siding at some point in this 52 mile stretch of track to clear the faster through passenger trains and frequently the freight trains take siding at two different points for different following passenger trains. The delay to freight trains clearing for passenger trains in the month of October amounted to 182 freight train hours.

With regard to our final placement, a description of three of the larger cities, I believe, will give a general idea of the operating difficulties experienced in handling the fruit and vegetable traffic. Testimony has been presented as to the change in operating conditions brought about by present day requirements for the expedited movement of the fruit and perishable traffic. This is particularly true on the New Haven.

[fol. 1334] I offer as exhibit No. 208 one sheet showing air photo of our Boston freight terminal, with oval insert of our classification yard No. 4.

(Thereupon, the photo referred to was received in evidence, marked Exhibit No. 208, Witness Fairfield.)

Prior to April, 1927, it was our practice at Boston, Mass., to place this traffic on various tracks in our No. 5 public delivery yard. At that time the Boston terminal market was constructed with two large brick houses 660 feet long and 50 feet wide, each with a capacity of 75 carloads and a bulk yard with a capacity of 200 carloads. Since that time a third house has been added and three covered platforms. All of this involved an investment of approximately $1,200,000 covering the buildings and land under them, but not including the tracks or the land under the tracks required to serve these terminals and the adjacent yards. In this construction it was necessary to relinquish tracks in the yard having a total capacity of 290 cars and this was done in a yard that was cramped even before the change. This added to our difficulty in switching perishable traffic and slows up the handling of other traffic. Boston terminal proper is made up of 12 separate yards, not including the outlying yards. The present Boston terminal is the growth and extensions of what were the terminals of the Old Colony Railroad and the New England Railroad. Additions and [fol. 1335] extensions have been made as business increased but the location of the yard limited by the waterfront, by city streets and by built-up districts has prevented the construction of a receiving yard, a classification yard and forwarding yard, such as would provide for a more economical operation. The longest track in the yard holds only 38 cars. There is a bottle neck of the yard passing under one of Boston City heavy traffic streets, as can be seen in the photo. The yard tracks fan out from the east end of the

yard, contract again under the overhead Summer Street, and from the latter point extend in all directions to the waterfront. The physical characteristics of the yard and the lack of space to provide hump yard facilities results in numerous rehandlings of the same cars in flat switching passing from one yard to another.

Measured by cars handled per switch engine hour, Boston has the least productive results of any yard on the system and this is due to the layout of the yard as described and the handling of the perishable traffic requires a greater amount of effort than that of any other traffic received in the yard. The cause of this is that the bulk of the perishable commodities is arriving at this terminal in the different trains prior to and after midnight with a definite limitation that they must be placed at the various parts of the market terminal prior to opening at 5 A. M. Cars that are not placed are subject to refusal by consignees and subse- [fol. 1336] quent filing of claim for loss of market. Telephone advices are forwarded from the gateway to Boston of car numbers, initials, consignee and contents and the same information is also given from New Haven on trains destined to Boston and other eastern points and the consignees have all information available as to various commodities en route and the New Haven assumes the expense for doing this work. Orders are then placed with our local people for the placement of cars they want placed and those to be held out. On arrival of trains at Boston, yard crews classify the cars according to the points ordered. For example—10 house, 11 house, 12 house, 7 yard delivery, 7 yard hold, platform delivery, State Yard hold, 5 yard hold, etc. This work is performed during limited hours in a yard that has very definite restrictions and if this fruit and perishable traffic could be handled in the same manner as slow freight traffic we could save five yard switching crews at this point alone, per day.

In addition to the cars delivered by the New Haven Railroad at Boston, cars of citrus are interchanged with the Boston & Maine Railroad and Union Freight Railroad through the city streets of Boston.

The Union Freight Railroad is operated as a separate railroad and is a switching railroad that has its tracks on city streets in the heart of Boston. The tracks run under [fol. 1337] the elevated structure of the Boston Elevated

Railroad on Atlantic Avenue and Commercial Street. The tracks are between the pillars of the Boston Elevated and are flanked on both sides by street car tracks.

The interchange movement over the Union Freight Railroad and to the Boston & Maine is restricted by the City of Boston to the night hours, the first movement usually being after 11 P. M. In making this interchange movement a flagman is required to walk twenty feet ahead of the switcher. The distance flagged in this way is a little over two miles on the Avenue. In going to and from the Boston & Maine Railroad the movement is over two drawbridges.

At Providence, R. I., a new market terminal was constructed April 15, 1929. The building is 965 feet long, two stories high and 60 feet wide with a total floor area of 224,000 square feet. A paved driveway 50 feet wide separates the warehouse siding from our yard No. 17 in the heart of Providence. A total of four tracks including the warehouse siding serve the property, each track having a capacity of 35 cars. Receivers of fruit and vegetable carload shipments insist on a 3 A. M. placing of cars in order that consignees may make delivery in time for the morning market. This traffic is also placed in the public delivery yard and at various points in the Providence terminal, including Arlington (6 miles from Providence) on the Willimantic [fol. 1338] Branch and Olneyville on the Pascoag Branch (4½ miles west of our break-up yard). The movement of this traffic is to our Northup Avenue hump yard (4 miles east of Providence) where cars are classified and moved back to yard 17 or a total of eight miles in switching service, over and above the rail haul to Providence. Providence, as measured in cars switched per engine hour, is next lowest in Boston, due to the congested switching area, and here too we have given up space and switching facilities valuable for other traffic in order to provide the facilities that are demanded today for the handling of this class of traffic.

Because of the large number of diversions on fruits and vegetables at Providence, it was necessary last year to start an additional train out of this point at night in order to make the market at Boston for next morning delivery. This was done after a trial of stopping the through trains in order to pick up these diverted cars, because the delay incurred in stopping to set off and pick up the perishable from Harlem River and other gateways, in several cases brought

them into Boston too late for the market. While this extra train handles other than perishable cars, it was put in primarily because of the fruit and vegetable traffic. At New Haven the principal delivery yard for fruits and vegetables is located at Silver Street with the remaining cars being delivered in the bulk tracks at Brewery Street, both loca-
[fol. 1339] tions being in the congested part of the city.

Cedar Hill, being the break-up yard, cars from the Harlem River gateway are hauled past these locations, a distance of 2½ miles beyond New Haven where they are switched out of the road trains and hauled back to the city proper by a transfer switcher. Cars for Brewery Street are then placed by city yard switcher and the cars for Silver Street are taken by another switcher and hauled down the main line through the passenger station, a distance of one mile, to the connection with the old Derby Railroad, thence over this line a distance of 1½ miles back to Silver Street. When placed these cars are within 1000 feet of the city break-up yard, yet it is necessary to haul them 2½ miles for placement, in addition to the 2½ miles back haul from Cedar Hill.

I have prepared data as to the effect of weather conditions on the operations in New York Harbor. My exhibits show that a large part of this traffic moves in cold weather months and I have referred to the slowing up of our operations in New York Harbor and vicinity due to inclement weather. I offer Exhibit No. 209.

(The paper referred to was received in evidence, marked Exhibit No. 209, Witness Fairfield.)

Exhibit 209 is a statement showing weather conditions affecting floating operations January 1 to April 19, 1929. This is the result of a special analysis made two years ago [fol. 1340] but I consider it is representative of conditions that we meet yearly. The first block of figures shows the number of hours of inclement weather conditions that adversely affected our operations. The last line shows the number of hours that there was a complete stoppage of floating operations.

Where that first line shows "cloudy, hazy or foggy," cloudy is not where we have a few clouds, but where it is verging on the haze, or will change to haze or fog.

When the water route is stopped entirely and the pros-

pect of clearing in time for perishable movement is not good, the Pennsylvania Railroad run the perishable cars through the passenger tubes under the Hudson River and the East River through the New York passenger terminal of the Pennsylvania Railroad. This movement through the congested passenger terminal and tubes is an indication of measures taken to assure the prompt handling of perishable freight. In no instance do cars of merchandise or other freight move over this route. That, of course, is not a regular thing.

In considering the effort of the railroads to produce this highly specialized and expedited movement of citrus fruit it is interesting to show one item of expense thrown on to the terminal railroads by the consignees. In Boston during the month of February, 1931, consignees released only 20 percent of the citrus fruit on the same day car was placed, [fol. 1341] 29 percent on the second day and 42 percent was held three days or more. In May, 1930, 37 percent of the citrus was released on the first day, 27 percent on the second day and 36 percent was held three days or more. This condition means that the railroad bears additional expense in switching the cars, in the first place to place on hold tracks and then place for delivery and also to switch cars for icing. It also means that we have to furnish additional space to hold the cars until required. It is not infrequent to have cars of citrus fruit held three days or longer and then receive orders to place at a certain designated location or too divert it to some other point.

Cross-examination.

By Mr. Gwathmey:

Exhibit 205 shows the receipts of citrus fruit via the Harlem River gateway from the four Florida lines and in a separate item the receipts show from all other lines. That last includes the California citrus fruit.

The New Haven Railroad has taken no steps to discourage the holding of cars at destination that I know of. The reason a car is sometimes held out for three days at Boston is the market conditions. It is my understanding that consignees are not ready to accept and unload the car on account of the market conditions and they will just let it stand [fol. 1342] there. I don't believe I am prepared to answer

whether that is the proper function of a railroad. I am just stating what the conditions are and how our operations are adversely affected but whether we should control that or not, I do not know. I think it is a part of the picture in showing the work we are doing in connection with the citrus fruit traffic and that is what my statement was for and if that should not be given consideration I think the Commission will know that.

There are certain exceptions to the charges for diversions and reconsignments made by our company. I understand that if it is diverted from one consignee to another before arriving at destination there is no charge but I have not included those items in my testimony. Those that I have referred to are, of course, covered by the tariffs.

J. L. Heywood, having been first duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am a special agent in the Accounting Department of the Pennsylvania Railroad. I have caused to be compiled certain data as to the expenditures of the Pennsylvania Railroad for the account of perishable terminal facilities during the years 1912 to 1930, inclusive. The exhibit that [fol. 1343] I have prepared is true and correct to the best of my knowledge and belief.

Mr. Eshelman: We ask that that be received as the next exhibit.

(Thereupon, the paper referred to was received in evidence, marked Exhibit No. 210, Witness Heywood).

Witness: I have also made an investigation to determine the amounts of money which the Pennsylvania Railroad regional system paid out during the years 1926 to 1930, inclusive, for removing snow, ice and sand from the tracks. Those amounts are as follows: 1926, $1,914,348; 1927, $916,243; 1928, $602,189; 1929, $977,859; 1930, $586,038.

Cross-examination.

By Mr. Gwathmey:

Exhibit No. 210 covers anything connected with perishables and I would say that if it was connected with that plat-

form cost of tracks would be included in it. In putting in a new facility for perishable freight, I would say it was included. That would be my understanding.

[fol. 1344] E. A. Hodkinson, having been previously sworn, was recalled and further testified on direct examination as follows:

Examined by Mr. Calhoun:

I am commerce statistician for the Trunk Line Association. I am appearing for all the Official Classification lines. There has been prepared under my supervision a set of exhibits for introduction here dealing with the accounting features of this case. Those exhibits reflect the facts, to the best of my knowledge and belief.

My first exhibit, no 211, shows the rail mileage, eastern district and southern region, respectively, by three-year periods.

(The paper referred to was received in evidence, marked Exhibit No. 211, Witness Hodkinson).

Starting with the year 1911, up to and including the year 1929, the mileage is shown separately as "Single or first track", "second track", "Third track", "fourth and industrial track", "yards and sidings", and, "total mileage operated all tracks."

The last line in the first section of the exhibit shows the increased mileage as to each class of track, 1929 over 1911. The increase in total mileage is 23,025 miles for the eastern district. and 14,235 miles for the southern region.

[fol. 1345] At the foot of this exhibit is shown the percentage increase over 1911 for each class of track. The percentage increase as to single or first track, 1929 over 1911, is 7.1 percent for the eastern district and 10.7 percent for the southern region.

For the second track, the increase is 28.5 percent for the eastern district and 180.9 percent for the southern region.

For the third track, the increase is 26.9 percent for the eastern district, as compared with 253.8 percent for the southern region.

For the fourth and industrial track, the increase is 94.9

percent for the eastern district, as compared with 267.4 percent for the southern region.

For yards and siding, the increase is 32.4 percent for the eastern district, as compared with 65.8 percent for the southern region.

The percentage increase for the total mileage operated all tracks is 19.4 percent for the eastern district, as compared with 29 percent for the southern region.

My next Exhibit is No. 212.

(Thereupon, the exhibit referred was received in evidence, marked Exhibit No. 212, Witness Hodkinson).

In this exhibit, No. 212, I have shown the population by states, by ten-year periods from 1870 to 1930. In this ex-
[fol. 1346] hibit separation is made as to states within Southern Classification territory and states within Official Classification territory.

While it is true that a small part of Kentucky is located within Official Classification territory, the greater part of Kentucky falls within Southern Classification territory, and for that reason I have placed Kentucky in the Southern Classification group. It is also a fact that some portion of the State of Virginia is located in Southern Classification territory, but since most of the state is situated within Official Classification territory I have included Virginia with the Official Classification states.

The population figures shown on this exhibit agree with Witness Lamb's Exhibit No. 81, in so far as the states shown on his exhibit are concerned.

My next exhibit is No. 213.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 213, Witness Hodkinson).

This exhibit No. 213, shows the population per mile of railroad in the Southern Classification states and Official Classification states, respectively, by 10 year periods, starting with the year 1890 up to and including 1930. The figures shown on this exhibit also agree with the miles of railroad and population figures shown on Witness Lamb's Exhibit No. 81, in so far as the states shown on his exhibit
[fol. 1347] are concerned.

In this exhibit, as in the preceding exhibit, I have included Kentucky with the Southern Classification states

and Virginia with the Official Classification states. It is, of course, perfectly obvious that the small increase in population per mile for the southern states is due to the tremendous increase in railroad mileage in the southern states during the period covered by the exhibit. In this connection, I desire to call particular attention to the percentage of increase as shown at the bottom left-hand corner of Mr. Lamb's Exhibit No. 81, from which it will be noted that the railroad mileage in the South Atlantic group was increased 68 percent in 1930 over 1890, whereas the population during this period only increased 76 percent. On the other hand the railroad mileage in the Eastern group was only increased 16.1 percent with a population increase of 101 percent. Naturally, under these conditions the population per mile of road remained practically stationary in the South Atlantic group.

Mr. Lamb's Exhibit No. 82 is copied from a statement issued by the statistical bureau of the Interstate Commerce Commission. I do not understand it to be an official document of the Commission, it simply reports the results of a study made by Dr. Lorenz. The carriers within the Official Classification territory are unable to compile statistics for [fol. 1348] traffic density, operating costs, revenues or anything else, by states. The figures shown for Trunk Line territory for an example, include points in the States of New York and Pennsylvania, which are within Central Freight Association territory. The New York figures would also include some points within New England territory. Further than this, the study in question was made in 1927, which may, or may not be a representative year, and it is also highly probable that conditions have changed materially since the study was made.

My next exhibit is No. 214.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 214, Witness Hodkinson).

This exhibit, No. 214, shows a comparison of traffic density, comparing the Eastern district (including Pocahontas) with the Southern region, for the years 1911, 14, 15, 16, 26, 27, 28 and 29. I have started with the year 1911 for the reason that this was the first year in which the statistics of the Commission were prepared for the respective regions. Our idea was to go back as far as we could con-

veniently do so, for all of these exhibits and, generally speaking, 1911 was the first year that we could cover. In other statements, it may be we could only go back to 1914. That was because those were the first years for which we could obtain the figures. It is a fact that in some instances, even by doing the clerical work and expending the money, we could not have gone farther back than we have gone [fol. 1349] in these exhibits.

Prior to 1911 the statistics were prepared by groups and it would require considerable work to prepare comparable figures prior to that year. The percentage increases, 1929 over 1911, are shown in the three last columns of each block as to miles of track, revenue ton miles and tons one mile per mile of road. For the Eastern district there is a percentage increase of 6.56 percent miles of road, as compared with 11.69 percent for the Southern region; the revenue ton miles increased 61.69 percent for the Eastern district as compared with 102.09 percent for the Southern region. The tons one mile per mile of road increased 51.73 percent for the Eastern district as compared with 80.93 percent for the Southern region. The comparisons which I have just made are 1929 over 1911.

My next exhibit deals also with traffic density. This exhibit will be No. 215.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 215, Witness Hodkinson).

This Exhibit No. 215, is similar to the preceding exhibit. It also deals with traffic density, showing the revenue ton miles (thousands), revenue tons originated (thousands) and revenue tons carried (thousands) for the Eastern district, including the Pocahontas region, compared with the Southern region. The percentage increase is shown over [fol. 1350] 1911 for each year appearing on the statement. With but very few exceptions the Southern region enjoyed a greater percentage increase in every year than did the Eastern district, as to all three factors considered, namely, revenue ton mile, revenue tons originated and revenue tons carried. The only exceptions are as to revenue tons originated in 1914 and 1917, where the Southern regions percentage of increase was less than that of the carriers in the Eastern district, and as to the revenue tons carried, the years 1914 and 1917, where again the Southern region's

increase was less than that accruing to the Eastern district. In all other years the carriers in the Southern region had a materially greater percentage increase than did the Eastern carriers.

Comparing 1920 with 1911 shows, as to revenue ton miles. there was an increase of 38.15 percent for the Eastern district as compared with 72.21 percent in the Southern region; revenue tons originated, an increase of 12.40 percent in the Eastern district, as against 24.20 percent in the Southern region; revenue tons carried, an increase of 8.48 percent for the Eastern district as compared with 37.52 in the Southern region.

Particular attention is also directed to the large percentage increase in revenue ton miles in the Southern region for the years 1920, 1923, 1926 and 1929.

[fol. 1351] Witnesses for the Southern carriers have laid considerable stress upon the importance of citrus fruit traffic to them. I have made a study for the purpose of developing the facts, and that is shown in my next exhibit No. 216.

(Thereupon, the document referred to was received in evidence marked Exhibit No. 216, Witness Hodkinson).

This exhibit, No. 216, shows the tonnage originated by the five principal Class I citrus fruit originating carriers in the Southern region and have compared the citrus fruit originated with the total carload traffic originated by these five roads.

The percentage the citrus fruit traffic constituted of all carload traffic originated ranged from .9 percent in 1926 to 2 percent in 1929, with varying percentages higher than .9 percent and less than 2 percent for the other years. This exhibit shows that the five roads dealt with originate practically all of the citrus fruit traffic originating in the Southern region. This is shown in the third block in the exhibit, where I have shown the total citrus fruit traffic originated in the Southern region and the percentage of that total which these five roads originate.

It will be noted that during the period covered, these roads originated in excess of 90 percent of the total citrus fruit traffic originated in the Southern region, the percent-

[fol. 1352] ages ranging from 96.3 percent in 1922 to 99.5 in 1930.

In the last block on this exhibit I have shown the percentages which the total citrus fruit traffic originated in the Southern region was of the total carload traffic in that territory. The percentage was either .3 percent or .4 percent during the years 1920 to 1928, .6 percent in 1929 and .5 percent in 1930. I have a companion exhibit which will be No. 217.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 217, Witness Hodkinson).

There is not any difference in the method employed in preparing the information shown thereon and the information shown on Exhibit No. 216. They were both prepared from the same source, but in the one case we took the tonnage originated and compared the citrus fruit traffic originated with the total, and on the next exhibit, No. 217, the comparison is made of citrus fruit traffic carried with all carload traffic carried. Exhibit No. 216 covers only citrus fruit raised in the South, originated there by these roads and covered by the roads. Exhibit No. 217 contains not only the citrus fruit grown in the South, but also that grown elsewhere and carried by the Southern lines.

Taking the five principal Class I originating carriers, again it will be noted that citrus fruit traffic constitute from [fol. 1353] 0.8 percent of the total carload traffic carried in 1926 to 1.6 percent in 1929. The percentage of the total citrus fruit carried in the Southern region of all carload traffic carried in the Southern region was less than 1 percent, ranging from 0.4 to 0.7 percent as is shown in last block on exhibit.

In Mr. Lamb's Exhibit No. 85 it will be noted that in the year 1928 citrus fruit revenue constituted only 4.14 percent of the total revenue of the five Southern roads dealt with by him, in 1929 it was 6.25 percent and in 1930 it was 5.63 percent of their total revenue. On pages 424 and 425 of the record Mr. Lamb stated that the products of mines and products of forests constituted approximately the same percentage of the total tonnage carried by the five Southern railroads on the one hand, and the Eastern roads on the other, whereas the higher grade traffic which was less than carload freight and manufactures and miscellaneous commodities, constituted an appreciably higher percentage of the Eastern lines' total traffic carried than of the Southern

roads. The figures shown on this exhibit, of course, speak for themselves. It will be noted, however, that in every year the total products of mines and forests, according to the figures shown on line 5 of Mr. Lamb's exhibit, show that the Eastern lines handled a greater percentage of these low grade commodities compared with their total tonnage [fol. 1354] than did the Southern lines. It also shows that the Southern lines' less than carload traffic carried also constituted a greater proportion of their total tonnage carried than was the case in so far as the Eastern roads were concerned.

I have an exhibit consisting of two pages, which will be exhibit No. 218, comparing for the years covered by that exhibit, including 1911 to 1930, the distribution of tonnage by groups of commodities, Eastern district, including Pocahontas.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 218, Witness Hodkinson).

This exhibit, No. 218, compares the Eastern district with the Southern region, for the years 1911, 1914, 1915 and 1920 to 1930, both inclusive, both as to tons originated and tons carried, showing what percentage of the grand total each commodity was for each of the years covered. That exhibit speaks for itself.

My next exhibit is No. 219.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 219, Witness Hodkinson.)

This exhibit, No. 219, compares the tonnage of the heavy loading low grade commodities originated in the Eastern district with the tonnage of these same commodities originated in the Southern region. We used 11 items for years 1921 to 1927 and 14 items for years 1928 and 1929 having [fol. 1355] an average load of 40 tons and up. In the years 1928 and 1929 we used a fifteenth item, brick, common, which does not average a load of 40 tons to the car.

These commodities during the period covered constituted in excess of 60 percent of the total carload tonnage originated in the Eastern district, and over 54 percent of the total carload tonnage originated in the Southern region. It will be noted that the Eastern district originates a greater

percentage of this low grade traffic than does the Southern region. The average for the years 1921, 1923 and 1925 and 1927 for the Eastern district was 68.17 percent of the total tonnage originated, as against 57.37 percent of the total tonnage originated in the Southern region. Those figures are found on sheet 2 of the statement. For the years 1928 and 1929 this low grade tonnage constituted 63.82 percent of the total tonnage originated in the Eastern district, as compared with 57.95 percent of the total tonnage originated in the Southern district. These averages are found on the second sheet of the exhibit, and the explanation of the item numbers shown in the fourth and ninth columns on the second page of the exhibit will be found on the first page of the exhibit.

Item 16, for example, is the average tonnage of all the items 1 to 15. Item 17 is the average of the grand total all carload traffic.

[fol. 1356] The next exhibit, No. 220, is a graph.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 220, Witness Hodkinson.)

Ton mile revenue is influenced by the average haul and by the character of the tonnage carried. Roads handling a preponderance of heaving loading low grade commodities naturally earn low ton mile revenue. The preponderance of low grade tonnage handled by the Eastern carriers of course has its effect on their ton mile revenue, but the various general rate changes received by the carriers in the Eastern district, namely, the increases of 5%, 15%, 25% and 40%, with a decrease of 10%, as compared with the two general increases of 25% and a general reduction of 10% for the carriers in the Southern region have also had a material bearing on ton mile revenue earned by the carriers in the respective regions. While 20 years ago there was a wide disparity between the ton mile revenue of the carriers in the Eastern district and those in the Southern region in favor of the latter, this spread had rapidly diminished since 1917. This is graphically illustrated in my exhibit No. 220. In 1911 the ton mile revenue for the Eastern district was 6.18 mills, in the same year for the Southern region it was 8.24 mills. The ton mile revenue for the Southern region being 133 percent of that in the Eastern district. In the year 1928 the ton mile reve-

nue for the Eastern district was 10.21 mills as against 10.78 [fol. 1357] mills for the Southern region. In 1929 it was 10.14 mills for the Eastern district, as against 10.88 mills for the Southern region. In 1930 it was 9.98 mills for the Eastern district as against 10.82 mills for the Southern region. Then in 1930 the ton mile revenue for the Southern region was only 108.5 percent of the ton mile revenue for the Eastern district. In 1922 and 1923 the ton mile revenue for the Southern region was even lower than 108.5 percent of the ton mile revenue of the carriers in the Eastern district.

My next exhibit is No. 221.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 221, Witness Hodkinson.)

This exhibit, No. 221, is comparable to Witness Lamb's Exhibit No. 86, except that it covers all Class I carriers in the Eastern district and Southern region instead of only selected carriers. That exhibit shows freight and passenger service operating statistics of Class I steam roads in the Eastern district. This exhibit consists of two pages, the first page being devoted to the Eastern region, and the second page to the Southern region.

My next exhibit is No. 222.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 222, Witness Hodkinson.)

This exhibit, No. 222, covers the various criteria of effi- [fol. 1358] ciency as reflected in the statements filed by the carriers with the Interstate Commerce Commission. This statement was prepared in exactly the same manner as Dr. Parmelee prepares his statements, covering those 13 items for all Class I railroads in the country. It has been offered in a number of cases and has been accepted by the Interstate Commerce Commission, and I believe the exhibit speaks for itself.

My next exhibit is No. 223.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 223, Witness Hodkinson.)

This exhibit, No. 223, is similar to Mr. Lamb's exhibit No. 88, except that it covers all Class I carriers in Eastern district and Southern region respectively. The exhibit is

in two pages, the first page being devoted to the Eastern district and the second page to the Southern region.

Rate of return figures for each region as a whole are indicated, whereas in exhibit 88 Witness Lamb made comparison of rates of return on individual roads in the two territories and on five Southern roads, as distinguished from seven Eastern and nine Eastern roads.

It is not permissible to draw any conclusions from rate of return data for individual lines, or for groups of individual lines in any territory. The only rate of return figures that have any standing before the Interstate Commerce [fol. 1359] Commission or the courts, are rate of return figures covering all railroads in each rate of return group fixed by the Commission, be it the Eastern district or the Southern region each as a whole.

My next exhibit is No. 224.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 224, Witness Hodkinson.)

This exhibit, No. 224, is a comparison of property investment and condensed operating income account, Eastern district (including Pocahontas) and Southern region. The property investment figures shown thereon are carriers' book figures and they check with the figures shown in Mr. Lamb's Exhibit No. 87, pages 3 and 7. The average rate of return on total investment for the period 1921 to 1930, inclusive, is 4.52 percent for the Eastern district and 4.19 percent for the Southern region. I have also averaged the amount required to realize 5¾ percent on total investment and the shortage, the last figure being obtained by taking the net railway operating revenue income from the column headed "5¾ percent of total investment." It will be noted that the shortage for the period covered was $1,330,347,096 for the Eastern district, and $469,389,859 for the Southern region, average of $133,034,710 for the Eastern district and $46,836,986 for the Southern region during each of the ten years covered by the exhibit. This exhibit, No. 224, shows [fol. 1360] that the average rate of return received by the Eastern district carriers and by the Southern region carriers has been substantially the same.

In his exhibit No. 90, Mr. Lamb undertook to show the cost per revenue ton, based on yard accounts, yard accounts excluding floating ton miles, other than yard accounts, these

accounts excluding floating ton miles; all expenses; and all expenses excluding floating ton miles.

In commenting upon this exhibit he said, page 446 of the record, that the cost- for the yard expenses listed on this statement are greater on the four Southern roads than on the Eastern roads referred to in his exhibit, per ton mile.

While admitting that these figures were not fully representative of terminal costs, he went on to say that the cost- for the yard expenses listed on this statement are greater on the four Southern roads than on the Eastern roads referred to on this exhibit, per ton per mile.

While not admitting that the yard accounts, so-called, measure terminal expense, or that accounts other than yard measure entirely road haul costs, if such a comparison is to be made, it should be made preferably on a gross ton mile basis instead of the net ton mile basis, and further, the entire territory should be compared instead of certain selected roads.

In my Exhibit 225 I have shown for the year 1929 the [fol. 1361] total yard accounts, for the Eastern district and the Southern region, total of all accounts other than yard and grand total expenses, freight proportions. I have further shown gross ton miles, including locomotive and tender for each region, as well as freight car miles. On the gross ton mile basis it will be noted that the expenses in the Eastern region exceed those in the Southern region, when measured by the yard accounts, other than yard accounts, or all expenses, and this same situation obtains as to cost per loaded freight car mile.

The reason- why in my opinion it is improper to use revenue ton miles in making a comparison of this nature as Mr. Lamb does, are:

1. He omits entirely non-revenue ton miles. Non-revenue ton miles are made in hauling company supply fuel and materials used in construction and maintenance.

2. The revenue ton miles do not take into consideration either the tons of locomotive, tender, rolling stock and caboose, either loaded or empty, both of which, together with the lading, must be taken into consideration, especially in dealing with yard maintenance and operation.

3. Gross ton miles are the basis of the OS forms reported by the carriers to the Interstate Commerce Commission pursuant to its accounting regulations.

It is more equitable to make such a comparison on the [fol. 1362] basis of gross ton miles because gross ton miles take into account all of the service performed by the carrier as reflected by the revenue ton miles, as well as the other items to which I have referred, which items are not included in revenue ton miles.

A comparison made on the basis of loaded freight car miles is fairer than a comparison made on the basis of revenue ton miles for the following reasons: 1. It more nearly approaches the gross ton mile unit since it includes the weight of the container, the freight car. It is not as good, however, as the gross ton mile basis because it does not include the weight of the locomotive and tender, the caboose and the empty return movement of the container.

HUBERT M. BASSETT, having been first duly sworn, testified as follows:

Examined by Mr. Calhoun:

I am Hubert M. Bassett, assistant to the Comptroller, New York Central Lines, 466 Lexington Avenue, New York City. I am testifying in behalf of all the Official Territory lines in this proceeding.

I have prepared some evidence in the form of exhibits. I entered the railroad service upwards of 27 years ago in [fol. 1363] the engineering department, held various positions in the engineering department, and finally that of designing engineer. I then was transferred to the operating department where I was engineer of roadway and structures for the entire New York Central. Later I became general engineer for the New York Central. I am a graduate engineer.

In the operating department I was special assistant to the Vice-President in Charge of Operations over the entire New York Central lines, the Vice-President in Charge of Operations and Maintenance of the New York Central Lines at that time, senior Vice-president, I think his title was. Subsequently I transferred to the Official and Executive

Departments, where I spent four or five years. In the last eight years I have been on the Staff of the Vice President in Charge of Accounting. He was known as the Comptroller for a period up to four or five months ago. As such I have jurisdiction over the entire New York Central Lines insofar as the accounting or statistical or traffic matters or rate cases are concerned. I have testified in a number of these rate cases.

Witness Lamb introduced an exhibit, No. 91, which purported to be a comparison of traffic density and operating costs on five Southern roads with those on seven Eastern roads and nine Eastern roads. I have elaborated on that exhibit in the respect of showing the five Southern roads, [fol. 1364] seven Eastern roads and nine Eastern roads just as Mr. Lamb did except that I have added to the investment in materials and supplies the cash, and in addition, I have shown two columns only representing the Eastern district, including the Pocahontas, by roads, and the last column in each year of the roads in the Southern region. The comparison is on the basis of 1928, 1929 and 1930.

Mr. Calhoun: That exhibit is offered as Exhibit No. 226.

(Thereupon, the paper referred to was received in evidence, marked Exhibit No. 226, Witness Bassett.)

Witness: This exhibit consists of two sheets. The first sheet is in practical accord with Mr. Lamb's exhibit No. 91 except that I have added the Eastern district carriers' figures as a whole to the Southern region carriers' figures as a whole, and I have included with the investment in materials and supplies the cash. The first sheet has been prepared on Mr. Lamb's relationship of passenger to freight, passenger miles to ton miles, of three to one and while I do not subscribe to that at all, I am putting it in to show the situation. My calculation shows what the comparison of traffic density and operating costs would be on the roads in the Eastern district as a whole and in the South as a whole, assuming that a three for one ratio is correct. I will give testimony later indicating that I do not [fol. 1365] consider that the three to one ratio is a proper method for use in making computations of this nature.

In sheet two instead of using the ratio of three to one in the block, I have used the actual ratio or revenue per pas-

senger mile to revenue per ton miles in the various groups set forth, and for each year, and in the lower block I have used the ratio of expenses per passenger mile and expenses per revenue ton mile for each of the groups.

The most important deduction to be drawn from either sheets 1 or 2 of Exhibit No. 226 is perhaps most clearly brought out if you will look at line 18. If one proceeded on Mr. Lamb's selected road group, you will find that the seven Eastern roads exceeded the five selected Southern roads in this unit by about 39 percent. In other words, the five Southern roads are 61 percent of the seven Eastern roads and 63 percent of the nine Eastern roads. When I compare the Eastern district roads as a whole with the Southern region roads as a whole I find in this case that the Southern region was 86 percent of the Eastern district in the year 1928. Likewise in 1929 I found the Southern region to be 81 percent of the Eastern district, whereas Mr. Lamb's figures were respectively 59 and 61.

In 1930, I find that the Southern region was 81 percent of the Eastern district, whereas Mr. Lamb's exhibit would show the seven Eastern roads 61 percent of the five selected [fol. 1366] Southern roads, or 62 percent of the seven Eastern roads as he selected them. That simply means, in a few words, that as you take the groups and compare the groups on traffic units per $1,000 of investment, they come very close together, much closer together than if you pick out selected roads, and I think that is reasonable to expect.

However, close as I brought them together, on page 1, if we go over to page 2, to deal with, for instance, the real passenger ratio, I find that in 1928 the Southern region was 87 percent of the Eastern district; in 1929, the Southern region was 82 percent of the Eastern district; and in 1930, the Southern region was 85 percent of the Eastern district, still closer together, and if one cares to use—which I don't subscribe to—the ratio of the passenger mile expense to the ton mile expense, I find that in 1928 the Southern region was 89 percent of the Eastern district; in 1929 the Southern region was 83 per cent of the Eastern district, and in 1930 the Southern region was 94 percent of the Eastern district performance; in other words, getting very close to parity. The last figures which I gave are based on the actual ratio in the East as a whole, and in the South as a whole.

I stated, when I started to discuss exhibit No. 226, that I do not subscribe to Witness Lamb's so-called three to one ratio. Among the ever increasing number of statistics [fol. 1367] of railroad operation, the traffic unit, continues to show its head. Occasionally, writers in finance journals have used it and in earlier days the Interstate Commerce Commission made use of same, though in a very guarded manner. It might be considered ideal, if it had any value, because it is assumed that by means of it railway operations as a whole can be analyzed without the troublesome problem of separating the passenger and freight statistics.

The traffic unit, is a combination of ton mile and passenger miles with the passenger mile re-stated in terms of ton miles on the basis of an equation factor; passenger miles being multiplied by a factor, which varies from 1 to 10, and the result added to the freight ton miles.

Perhaps the traffic unit was brought into being solely because of the difficulty constantly experienced in presenting any unit costs based on total revenue and total expense —passenger and freight. Evidently there has been some thought that by the use of an equated traffic unit the distortion brought about by the passenger business could be eliminated. While the unit has not been used extensively, it has been used to compare unit operating costs on the same railroad for different periods and sometimes for different railroads for the same period.

Spasmodically it has been used to compare general operating results, freight and passenger combined, on a unit [fol. 1368] basis, but more often it has been used to compare the trend of traffic as a whole, with the growth of facilities, capitalization and investment, and I propose to check the use of such a unit and point out the inconsistencies and fallacies which appear.

My conclusions are based on the use of this statistic drawn from the records of four railroads; the first railroad is a line with very heavy and relatively satisfactory passenger business; the second railroad is a line which has very little passenger business, but a heavy freight movement; the third railroad has a sizable, but unprofitable passenger business and a good tonnage of freight whereas the fourth railroad is an interterritorial carriers with a well balanced passenger and freight business.

All of the statistics used are based on the actual opera-

tion of the different roads under the various conditions that exist and the results therefore can be taken as indicative of results on like series of railroads.

Basis of Revenues

The first difficulty arising in connection with the use of the traffic unit is that of a basis of equating passenger miles to freight ton miles. These have nothing in common and can be put on a common base only by the use of an arbitrary alleged to measure the relative effect of each service on operating revenues and expenses, and since the reve- [fol. 1369] nues per passenger mile or per ton mile are more accessible than are the respective expenses, most users have based their equation on the relationship of the ton mile and passenger mile revenues, but if this relationship is analyzed it will be found that it is not a fixed or standardized ratio but one which varies in great degree. Table I, and I would ask that this be made Exhibit No. 227.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 227, Witness Bassett.)

Table I shows the percentage of the revenue per passenger mile to the revenue per ton mile for the four railroads in the years 1926 to 1930, respectively.

This table present curious results, even so far as comparisons are confined to the same railroad, there seems to be no consistency generally. On roads A and D the relationship holds fairly close, particularly on road A, during the five year period. One of these roads handled a very heavy passenger business, while the other handled a more generally distributed passenger and freight business. On railroad B there is almost a constantly diminishing spread between passenger mile and ton mile earnings, whereas on railroad C the ratio between the respective earnings shows more nearly a constant increase over the five years. Except on railroad A therefore, one cannot use the same basis of equation from year to year and be [fol. 1370] certain that the results will be consistent. As between railroads there is greater inconsistency. On railroad A the passenger miles would have to be multiplied by about 0.2 in any year, 1926 to 1930. The ratios on railroad B range from 4.6 to 5.3; railroad C would have ratios varying from 3.1 to 3.2 and railroad D would have ratios

from 2.8 to 3.0 depending upon the year which was being considered.

These inconsistencies are extremely troublesome as between railroads, the factor, about one quarter, which is proper for railroad A would be absurdly low for either of the other three railroads and particularly low if applied to railroad B. In no year, could the same factor be applied on all railroads, nor if we discounted railroad A, would there be any year on which the same factor could properly be applied on all the other railroads, and this situation produces the inconsistencies of having different bases of equation on different railroads, with the further absurdity of having different bases of equation for the same railroad if more than one year's figures are involved. Witness Lamb used in his ratio all of the railroads covered by his exhibits Nos. 89, 90, 91 and 92.

Relationship of Revenues and Expenses

Not only are there inconsistencies as between the relationship of ton mile and passenger mile revenue, but an equation factor set up on the basis of relationship of ton [fol. 1371] mile and passenger mile revenues very frequently does not express the difference between the ton mile and passenger mile expenses. Those that have used the traffic unit have done so primarily to obtain unit costs and the equation has been set up on the basis of the difference in the unit revenues because the unit expenses are not so easily available. Obviously, however, if the question is to be made on the difference between ton mile and passenger mile revenues, this relationship will be entirely different from that of the ton mile and passenger mile expenses and any unit costs based upon the equation factor derived from unit revenues must not be used to check expenses.

I have therefore prepared for the same railroads and for the same periods, comparing in a manner similar to Table I, the ratio of the expenses per passenger mile to the expenses per ton mile. (See Table II in Exhibit No. 227.) The figures shown on Exhibit No. 227 are actul figures made by reports of four actual railroads to the Interstate Commerce Commission. Curious and remarkable inconsistencies appear. Railroad A remains nearly constant, and its relationship between passenger and freight expenses approximate the similar relationship between passenger and

freight revenues per passenger and ton mile and also on railroad A either relationship remains fairly constant over [fol. 1372] each of the five years.

Railroad D is scarcely comparable as to the relative expense ratios and the relative revenue ratios as on railroad D the variation is noticeable, ranging as it does from 316 percent to 400 percent. The highest revenue ratio, over period of five years, being lower than the lowest expense ratio for the same period of five years.

On railroads B and C we leave the realm of any comparison between the respective expense and revenue ratios. Railroad B, as to revenue ratio would not exceed 5½ to 1, but the expense ratio ranges all the way from 14.9 to 33.0 in the different years, there being absolutely no relationship. Still less is there any consistency apparent in a railroad, which over a period of five years shows such spreads.

Railroad C does not have quite so wide a variance, but there is a comparison between the expense relationship and the revenue relationship here either, as its unit expense relationship varies from 6.3 to 8.1 in a five year period. The lowest unit expense ratio being almost twice the highest unit revenue ratio.

As was shown in revenue ratio data, except on railroad A, we cannot use, even on an individual carrier, the same ratio from year to year and it is certainly improper to use the same ratio on several railroads for even the same year, as the absurdity is clear of attempting to apply the [fol. 1373] same ratio to a road, like railroad A, where the unit expense passenger ratio is approximately 26 percent of the unit expense on freight to railroad B, where the passenger unit expense is as great as almost 3300 percent of that road's corresponding freight unit expense.

I feel that no further elucidation of such a performance is necessary.

My next Exhibit is No. 227.

(The document referred to was received in evidence, marked Exhibit No. 227, Witness Bassett).

I have shown in this exhibit No. 227, Table III, for the year 1930 only, the percentages of revenue per passenger mile to the revenues per ton mile compared with the percentages of expense per passenger mile to the expense per ton mile for the four railroads, and it might be noted that

traffic units made on the basis of an equation factor based on the percentages of passenger mile revenue to ton mile revenue would be nearly correct only as applied against the expenses on railroad A. But by no stretch of imagination could they be considered of any value whatsover, if applied on railroad B and the probabilities are that they are little, if any value, if applied on railroads C and D. In other words, in the case of railroad A, one could multiply the passenger miles by one quarter and be reasonably correct, but in the case of railroad B, one would need to multiply [fol. 1374] the passenger expenses by 33.0 if they were used, or 4.6 if the revenue ratios were used. The absurdity in the comparison on the other two roads is just as evident.

It at once is clear that any attempt to correctly equate passenger miles and ton miles presents insurmountable difficulties, as there is no definite basis for equating the two. While on some railroads the relationship between the ton mile revenue and the passenger revenue is reasonably the same, as that between the ton mile expense and passenger mile expense, on the other roads there is absolutely no relationship and that there is further a wide difference in the relationship of ton mile and passenger mile revenue as between different roads and on the same road in different years, and that before we could even attempt to make use of the traffic unit we must have the knowledge both as to relative ton mile and passenger mile earnings, but also relative ton mile and passenger mile expenses.

So far I have dealt with the proposal to use the traffic unit to measure operating expenses as a whole, but attempts have been made to obtain unit costs of various classes of operating expenses, by using the traffic unit by applying the ratio to all accounts which necessarily carries with it the application of the ratio to group expenses, such as station, yard, road, miscellaneous, general and traffic expenses, etc. All railroad officers and regulatory [fol. 1375] commissions know that the effect of passenger service on different classes of operating expenses vary widely, and the Interstate Commerce Commission Classification of Accounts contemplates this situation when it issues instructions as to how the accounts should be reported. As illustrative, Account 314, maintenance of freight cars, is 100 percent freight expenses, and we have Account 317, maintenance of passenger cars, 100 percent passenger ex-

pense. These two accounts measure the extremes, but between the extreme ranges the entire list of accounts, which when analyzed presents, on any railroad over a period of years, a wide variance as to the actual percentages charged to the respective services, passenger and freight. The actual percentages would unquestionably vary in all degrees, from 0 percent passenger to 100 percent passenger, yet one who uses the traffic unit secured on equation factors gives the same weight to the respective passenger and freight services, throughout all accounts.

From the above it would appear that the traffic unit based upon equation factor derived from the spread between ton mile and passenger mile earnings, would be entirely improper to apply against expenses as a whole, or against various subdivisions of the expenses, yet in Mr. Lamb's exhibits he has taken one equation factor for all roads and applied it against all revenues and all expenses and sub-
[fol. 1376] divisions thereof, and, he has applied it against all accounts.

Inconsistencies which Develop

In order to visualize some inconsistencies which develop through the use of the traffic unit, I have made comparisons in the various groups of expenses between the actual ton mile cost and the equated ton mile cost on these four railroads. (See Table IV). The first column shows the ton mile cost based upon a division of the actual freight expenses, per ton miles. That is the actual. The second column shows the quotient derived by dividing the total of the expenses by the traffic units, in which the equation factor of 3 to 1 has been used. That is Mr. Lamb's method. The third column shows the quotient derived by dividing the total expenses by the traffic units where the equation is different for each railroad and is based upon the relationship of ton mile and passenger mile revenue for the given road in the year 1930.

A review of Table IV indicates (1), that if it was the purpose to obtain from the total operating expenses and the traffic units, unit costs which will approximate the freight expenses per ton mile, the traffic unit based upon the relationship of three to one is in almost no case correct. Table IV also shows that a traffic unit based upon an equation
[fol. 1377] factor for each railroad will produce results

corresponding more closely with the actual ton mile expenses, but even in this case, the variations between the actual expenses per ton mile and expenses per traffic unit based upon the second basis produces widely different results in many instances. Because of such variances this table indicates that the traffic unit as a measure of obtaining unit costs which will approximate freight unit costs actual cannot in any way be depended upon, even in a single year of an individual railroad, much less over an extended period of railroad groups.

Comparison Four Roads

Although unit costs based upon traffic units do not produce results approximating the actual costs per ton mile, it has been claimed that the relationship of costs on different roads based on the traffic unit will be the same as the relationship of the costs of the same groups of expenses based on actual freight expenses and ton miles.

The Tables V, VI, and VII compare the percentage relationships of unit costs on four roads, using the unit costs shown in Table IV. Table V compares railroad A and railroad B, showing for each group of expenses, (a) the percentage of the ton mile costs on railroad A to those on railroad B, (b) the percentage of the traffic unit costs on railroad A to railroad B, the traffic units being based on a factor of one passenger mile to three ton miles, and (c) the [fol. 1378] percentage of the traffic unit costs based on different equation factors on each road as previously explained.

The first column shows the true relationship as between the two railroads, and as per table V the relationship as shown by the traffic unit, however equated, is widely different from the actual relationship shown by the relative ton mile costs. This comment applies to all groups of expenses.

Table VI shows the relationship of the unit costs on the same three bases for railroads A and C. This table presents scarcely better results than does Table V. There is no general or standard relationship. The percentages based on the second traffic unit are more nearly the actual shown in the first column but there I am forced to the conclusion that even this data is valueless if I desire the true picture,

whereas the column based upon the 3 to 1 ratio presents for every group absolutely false data.

Table VII shows the same results for railroads A and D, with data far wide of the facts. In this table the relationship shown by the first traffic unit is in all cases the reverse of the facts. It shows railroad A with lower costs than railroad D while actually its costs are much higher. Moreover, while the percentages based on the second traffic unit are not as absurd, they are wrong. Moreover, in the [fol. 1379] case of yard expenses, this column also shows a condition the reverse of the real situation.

Traffic Unit Unreliable

Even a casual review of the tables makes it appear evident that the traffic unit, is a most unreliable statistic. Sometimes unit costs based upon it are close to the actual ton mile costs, but they more frequently are very different. Moreover, while the relationship of costs based upon the traffic unit are sometimes almost the same as the variation shown by ton mile costs, at other times the traffic unit costs show a relationship exactly opposite to the true ones, and lastly, the tables indicate that traffic units based upon a factor of 3 to 1 cannot be relied upon to show either correct unit costs or correct relationship between unit costs.

There have been proposals based upon using the traffic unit to show total revenues and expenses on a unit basis on different roads, and the relationship of unit revenues and expenses (based upon the traffic unit) has sometimes been used to show what the ton mile revenues and expenses of freight traffic would be, if these were available. However, as this latter point has not yet arisen in this case I shall not give the fallacies and inconsistencies which the use of a traffic unit produces in the attempt to develop such units. Conclusions, which in my opinion, are reached from the foregoing outline are as follows:

[fol. 1380] (1) That in equating passenger miles and ton miles, one must not use the arbitrary basis of one passenger mile equalizing three ton miles, unless it is found that this represents the actual difference on the given road for the given year, between relative ton mile and passenger mile revenues and expenses.

(2) That a traffic unit based upon any equation factor cannot be used without assuming that the result obtained may be untrue or as Dr. Lorenz of the Interstate Commerce Commission personnel said in 1923 in the Railway Age, the same trend would be shown whether you use an equating factor of 0, 1, 2, 3 or 4. In my opinion this could have been shown and a factor of 10 or 100 might just as well be used and still not produce, except by coincidence, true results.

(3) That the unit costs based upon the traffic unit cannot be accepted as even indicative of the freight unit costs for the same expenses, except under very unusual conditions.

(4) The unit costs based upon the traffic unit must not be accepted as indicative of the relative freight costs between railroads.

(5) That the unit costs of total revenues and total expenses based upon the traffic unit must not be accepted as indicative of the units of freight revenue and expenses [fol. 1381] unless information is available as to the relative profitableness of freight and passenger services.

Questions may arise as to when the traffic unit can be used if available, with any degree of satisfaction.

In my opinion it should never be used, but there is a possibility that it might be used, if carefully considered, when one desired, for a given railroad, over a given period of years, to develop trends, but in no instance should such a traffic unit be used to compare railroads or groups of railroads. By trends I mean trends of business, upwards or downwards or something of that nature, over a period of years.

There is at present no apparent reason for the use of any traffic unit method as the annual reports to the Interstate Commerce Commission now specifically separate the expenses and revenues between passenger and freight services, and if operations of the different railroads, or groups of railroads, are to be compared, such data easily accessible, should be used as the basis.

In response to question Witness Lamb stated, in effect, that the use of the 3 to 1 ratio, measuring total traffic unit, had received the approval of the Interstate Commerce Com-

mission, and had been used by it in various cases. I do not find the basis for such a statement. The Interstate Commerce Commission in 1920, in their annual publication [fol. 1382] of statistics of various railroads in the United States, did in a guarded way, make use of that ratio but they have never since, as such, set up similar data in the subsequent annual reports.

I find in 68 I. C. C. 47, Docket 13345, decided by Division 4, under date of March 14, 1922, Divisions of Joint Freight Rates Accorded the Missouri & North Arkansas Railroad, that the ratio is mentioned on page 53:

"For example, to secure unit comparisons, embracing all revenues and all expenses, we have adopted for use in some comparisons the 'equated ton mile' derived by adding to the freight ton miles three times the passenger miles. The ratio between freight revenue ton mile and passenger revenue per passenger mile in this territory being approximately 1 to 3. We have also aggregated all transportation service car miles. It is, of course, understood that the relation of gross earnings and expenses to units of this character does not produce absolutely correct results,——"

I find that subsequent to this time the use of the traffic unit even in a guarded manner has virtually ceased, and I have made a search of the I. C. C. files and do not find that the 3 to 1 ratio has been used in any case subsequent to the above date, by and with the approval, even guarded, of the Commission. Witness Lamb's exhibits Nos. 89, 90, 91 and 92 use this three to one ratio. If, as I contend, it is [fol. 1383] improper to use that ratio in the manner employed by Witness Lamb, it follows that all the showing made on those four exhibits must be disregarded by the Commission in this case. The exhibits are not so constructed that it means anything, unless the three to one ratio is a proper ratio.

I have dealt with Witness Lamb's three to one ratio; I have gone a step further and prepared an exhibit dealing with this question under consideration.

Mr. Calhoun: This exhibit is offered, Mr. Examiner, as No. 228.

(Thereupon, the document referred to was received in evidence, marked Exhibit No. 228, Witness Bassett.)

Witness: Before I start the testimony, I am a little bit unfamiliar with the typing bureaus here in Washington,

and in getting this typed, there are some errors which I would like to correct. In line 12, it should read: "4 x 8 joint facilities." In line 19, it should read: "9a ÷ 18." In line 22, it should read: "12 ÷ 18-joint facilities per ton mile." In line 29, it should read: "14 x 15 x 22-joint facilities per car per average haul."

I have prepared exhibit No. 228 for 1928, 1929 and 1930, and for the two groups, Eastern district including Pocahontas and Southern region.

In the previous exhibits and testimony I have pointed out the inconsistencies of the 3 to 1 ratio used by Mr. Lamb [fol. 1384] to obtain a so-called traffic unit as measuring the entire service of a group of carriers.

In this Exhibit 228 I shall present data on a different basis which I consider as more nearly measuring the performance of the carriers in the two districts and in this exhibit I have used the entire district comparing same with the Southern region as distinguished from Mr. Lamb's Exhibits 91 and 92, in which figures he uses selected roads. Lines 1 to 7 in my exhibit 228 present, for the three years 1928, 1929 and 1930, for each region, basic data as to investment, taxes, etc., and on line 8 I proceed on the assumption of dividing the respective investments between passenger and freight services on the ratio of their respective gross operating revenue as is the usual proced re of the Interstate Commerce Commission when it has become advisable to so segregate the investment.

Lines 9 to 13, inclusive, show the application of the freight proportion ratio to the interest, taxes, etc. Line 14 shows the average haul for the respective territories, line 15 the average load per car, line 16 freight revenue per ton mile in cents, and line 17 the freight expenses per ton mile in cents, for the respective territories and, of course, for each year. Lines 19 to 23 inclusive, show the respective charges per revenue ton mile of the items taxes, rents, etc.

[fol. 1385] Line 24 produces the revenue per average car for the average haul and for the average load, it being the product of items 14, 15 and 16, and is illustrated for the Eastern district, for the year 1928 as $49.45. For the same year in the Southern region, it was $53.27. Line 25 likewise produces the expenses per car for the average haul and for the average load and results in expenses for the

Eastern district for the year 1928, $34.39, and for the Southern region, $37.24.

Passing over the lines 26 to 31 inclusive, for the moment and taking up line 32, I obtain the ratio of the revenue as shown in line 24 to the expenses as shown in line 25, and this proves to have been in 1928, for the Eastern district 1.44, in the Southern region 1.43, virtually equality in the ratio. Putting it another way, it means that for every dollar spent in freight service in the North and in the South, the Eastern district and the Southern region, respectively, receive $1.44.

Comparisons are shown for the succeeding years and the ratio remains about the same, being exactly equal in 1930.

This is not the well known "operating ratio" of the respective territories, it is the exact converse of same, as for example, the freight operating ratio in the Eastern district for 1928 was 69.54 and in Southern region it was [fol. 1386] 69.94, which is mathematically the converse of the above ratio given in line 32 of this exhibit for that year. Dividing the operating ratios into units, respectively, would give 1.44 for the Eastern district and 1.43 for the Southern region, which are the figures that appear in line 32 of this exhibit.

So far I have taken into consideration as far as expenses are concerned only those appertaining to operations and maintenance expenses.

The net railway operating income of a carrier is obtained after taking into consideration in addition to the maintenance and operating expenses, net of equipment rents, net of joint facility rents, taxes, and uncollectable revenue, and in the composition of my exhibit, in addition to the above, I have assumed an earning of 5¾ percent on the investment in the allocated freight facilities. Witness Lamb made that same assumption in his exhibits.

Items 26 to 30 inclusive, develop these additional costs for the average load, the average haul and the average car. Item 31 being the sum of the operating and maintenance expenses shown in item 25 plus interest, item 26, taxes, item 27, equipment rents net, item 28 joint facilities net, item 29, and uncollectable revenue item 30, and results in a total expense as shown in item 31 for the Eastern district in 1928, of $49.22 and in Southern region for the same [fol. 1387] year, $54.16. The conclusion to be drawn there-

from is that for every dollar of revenue received by the Eastern district carriers, for the year 1928, for the average car, the average load, and the average haul, is that $1.00 has been expended for the items shown in the exhibits, assuming an item of 5¾ percent interest return on the investment in freight facilities.

In a corresponding manner, the Southern region with a revenue of $53.27 in 1928 per car for the average car and average load expended $54.16, slightly more than the roads took in. That figure takes into account the average haul too.

Summarizing, however, the ratios of the expenses to the revenues for each year and each district are so closely united that the conclusion is for the two regions there is parity of performance.

An adjournment was taken until October 19, 1931.

[fol. 1388] Washington, D. C., October 19, 1931.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

ANTHONY BONN, having been first duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am a special accountant in the office of the Comptroller of the Baltimore & Ohio Railroad. I have been in this present position for the last eleven years. Prior to that time I served in various capacities in the Department of Maintenance of Way. I have served the company for 29 years. Really I have railroaded for 35 years.

I have prepared an exhibit relating to terminal costs on the Baltimore & Ohio Railroad at Philadelphia which I will later present. It is true and correct to the best of my knowledge and belief.

At a hearing at Jacksonville, Florida, in April, 1926, in I. C. C. Docket No. 16939, Florida Commissioners of State of Florida v. A. & R. R. R. Co., evidence was submitted by the Baltimore & Ohio with respect to costs of

handling perishable freight in the Philadelphia terminal and by the Pennsylvania with respect to costs of handling such traffic in the New York terminals.

[fol. 1389] In order that similar information may be available in the present case these carriers have undertaken to make certain studies showing partial costs of handling perishable traffic. The formulae formerly used by the Baltimore & Ohio and Pennsylvania were not identical, that of the Baltimore & Ohio being much more complete and involved, and its assembly requiring a great deal more time and expense.

Because of the relatively short time available in which to make the present studies and in order to insure uniformity, the study covering partial terminal costs at Philadelphia which I will now present follows the formula which was used by Mr. Neal of the Pennsylvania in connection with his study of yard and station expenses in the New York terminals submitted in Docket 16939.

Mr. Eshelman: At this time we wish to offer this exhibit for identification as No. 229.

(Said document was thereupon marked for identification only Exhibit 229, Witness Bonn).

Witness: In the annual report to the Commission under schedule 320—the operating expenses for the year are analyzed in accordance with the Commission's Rules Governing the separation of Operating Expenses between freight service and passenger service and in addition certain maintenance of way and structure accounts are further separated between yard service and other service—among the [fol. 1390] accounts included in the yard separation are the roadway and track accounts Nos. 202 and 226.

While Schedule 320 carries this separation for the Baltimore & Ohio Systems as a whole, the divisional records of the Baltimore & Ohio show similar separation for the individual divisions. In Schedule 320 under transportation-rail line, there are certain primary accounts showing expenses for yard service alone—these accounts are from 377 to 389 and include wages, fuel, water, lubricants, supplies and engine house expenses.

In this study, therefore, we have used six yard roadway and track accounts and the ten yard transportation accounts, in addition have obtained from accounting rec-

ords the yard expense under Account 227, Station and Office Buildings, for the Philadelphia Terminal and have developed expenses for repairs and depreciation Accounts 308 and 309, Steam Locomotive Repairs and Depreciation, for the class of locomotives used in the Philadelphia Terminal on a mileage basis. In total we have considered nineteen accounts as assignable expenses for the purpose of the study.

The proportion of overhead and general accounts have not been added in any way in obtaining total yard service expenses; however, city and county taxes and interest on assessment valuation have been included.

In order that the details may be quickly explained, we [fol. 1391] will turn to page 3 which shows for the yard roadway and track accounts the yard freight expense for entire Baltimore Division (which includes the Philadelphia Terminals) for 3 year period (1928, 1929 and 1930). The yard freight proportion of common expenses as stated in divisional schedule 320 were proportioned on basis of yard engine miles. The unit "yard freight engine hours" was used, and the engine hours for the Baltimore Division as reported on the yard reports for the 3 year period were secured, and these total hours were divided into each of the yard roadway and track accounts to obtain the unit expense per engine hour. On pages 5 and 6 are shown in detail the actual engine hours made by yard freight locomotives in the Philadelphia Terminal during a 14-day test period (August 18 to 31, 1931) or 3,636 hours in total. These total hours are multiplied by the unit expense per engine hour for each account, and the results are the total assignable expenses for the roadway and track accounts for the test period; these total results are transferred to page 2 under maintenance of way and structures.

Page 3 shows Account 208, Bridges, Trestles and Culverts developed in the same manner, but the amount shown was not transferred to page 2 because a subsequent check of the accounting records disclosed that it would not be proper to assign any of this expense to a study of the Phil- [fol. 1392] adelphia Terminal.

The Baltimore & Ohio maintain auxiliary monthly records of the maintenance expenditures on their individual bridges and structures and from this record the total expenditures for 3 year period (1928, 1929 and 1930) was

secured for certain yard buildings, etc., in the Philadelphia Terminal. The same unit division "yard freight engine hours" was used to reduce the total 3 year expenses to a unit engine hourly basis and the total yard engine hours for the test period (3,636) multiplied by the unit expense equals the expense chargeable to Account 227 station and office buildings in the test period assignable to yard service. This result was carried to page 2.

From records for the year July, 1929, to June, 1930, for steam locomotive repairs by classes of locomotives, an expense per engine mile by classes was obtained by dividing the engine mileages run by the locomotives in each class into their repairs by classes which average results per engine mile are shown on page 3. For classified repairs the engine mileage between shopping was used, for running repairs the engine mileage made for the period was taken, the size of locomotive was considered when segregating the running repairs to the several classes. The engine miles made by the locomotives in the several classes during the test period (yard freight engine hours multiplied by 6 miles [fol. 1393] per hour) multiplied by expense per engine mile by classes equals the steam locomotive repair expenses for the different classes for test period. The sum total steam locomotive repairs is carried to page 2 under maintenance of equipment.

Account 309, Steam Locomotive Depreciation for the Test Period is obtained by using three percent (depreciation charge) of original average cost by classes of locomotives for three year period (1928, 1929 and 1930) divided by engine miles made by the engines in the several classes for the same period to obtain the unit depreciation expense per engine mile. The test period engine miles (yard freight engine hours by 6 miles per hour) multiplied by the unit engine mile expense gives the steam locomotive depreciation expenses for the different classes. The total result is carried to page 2 under maintenance of equipment making a total for the two equipment accounts of $5,383.30 for test period.

Accounts 377 Yard Masters and Clerks, 378 Yard Conductors and Brakemen, 379 Yard Switch and Signal Tenders and 380 Yard Enginemen are actual expenses for the test period assignable to the yard freight operations of

Philadelphia Terminal; these results are transferred from page 4 to page 2 under Transportation.

Following yard Accounts 382 Fuel, 385 Water, 386 Lubricants, 387 Other Supplies, 388 Enginehouse Expenses [fol. 1394] and 389 Supplies and Expenses are secured for a three-year period (1928, 1929 and 1930) for Baltimore Division and the expense under each account is divided by the total yard freight engine hours for 3 years to obtain unit engine hour expense. For each account the yard freight engine hours of test period (3636) is multiplied by the unit expense and the results are the expenses of the test period for these accounts. These results are transferred to page 2 under Transportation and added together make the total tons transportation expense of test period $21,836.07. The grand total of way and structures, equipment, and transportation expenses of the test period is $30,269.28. In order to include taxes and interest the city and county taxes paid in the current year for the yard facilities in the Philadelphia Terminal were obtained from the tax records and the valuation for assessment purposes were secured. The facilities exclude the passenger terminal, perishable produce terminal and right of way and tracks for road movements. The tax and interest information as shown on page 7 for yard service for the test period is found to be $6,663.30, which amount is added to the operating expense total ($30,269.28) making a total of $36,032.58 as the total expenses (assigned) including taxes and interest for the test period.

On page 5 is shown the cars received and dispatched in the Philadelphia Terminal during the test period and the [fol. 1395] total cars (19,151) are used as a divisor to obtain the average expense per car loaded or empty for the test period; that is $36,932.58 divided by 19,151 equals $1.93 per car movement.

During the test period 453 perishable cars were handled inbound loaded to the produce terminal and a similar amount outbound empty was used for the purpose of this study. By multiplying the average expense per car movement ($1.93) by the loaded and empty movement, we obtain a total expense of $1,748.58 for the handling of the 453 loaded cars or an average expense per loaded car of $3.86 for yard service including taxes and interest.

We will next turn to page 8 which shows certain expenses

in connection with the operation of the Philadelphia produce terminal, for a year's period, August 1930 to July 1931, inclusive. In that period there were handled at this terminal a total of 10,234 cars of perishable freight as disclosed by the agent's records. This car operation is separated 7,410 cars at platform, 2,824 cars at Team Tracks. In the same period the wages and expenses of agents, clerks and attendants were $14,462.00, which amount divided into the total cars handled gives a unit expense per car for agents, clerks and attendants of $1.41. In like manner the expense for foremen, checkers, sealers, were $14,278.35 for same period, divided by total cars handled gives $1.39 per [fol. 1396] car, the labor for the year's period is $63,857.96 which divided by the total cars handled gives $6.24 per car. Again, the repairs to the fruit terminal for three year period (1928, 1929 and 1930) were found to be $4,239.00 or $1,413.00 per year which divided by total cars handled gives 14 cents per car. The fire insurance and fire alarm system for one year [illegible] to $1,528.72 divided by cars handled gives 15 cents per car. Totaling the several expenses per car we obtain an expense per car of $9.33 exclusive of taxes and interest. Turning to page 7 it will be found that the taxes and interest on assessment valuation for the produce terminal is $81,802.74 for the year which divided by total cars handled gives $7.99 per car which added to the $9.33 expense per car makes a total expense per car of $17.32 for station services.

On page 1 we have added the yard and station services together, namely, $3.86 yard service and $17.32 station service and arrive at a total expense per car of $21.18 for handling perishable freight in Philadelphia Terminal including perishable produce terminal.

This study does not purport to show the complete or full terminal cost to the carrier incident to the handling of this traffic. We have not included any proportion of superintendence, stationery, printing, and so forth, known as overhead, traffic expense, general expense, or other items of overhead which would be applicable to a complete cost [fol. 1397] study. If such items were included there would be a material increase in the figures I have shown in my exhibit. I have not included anything for income taxes or for any other taxes than city and county property taxes. They would represent substantial items.

The test period is August 18 to 31st, 1931. That was the first period available after it was determined to make this study. Citrus from Florida would not be moving in volume to Philadelphia at that time. It starts a little later. This is nevertheless an appropriate showing to be used in this case for the reason that the yard service expense is not the expense of handling perishable freight alone but it is the expense of handling the entire movement through the yard and the period of August 18 to 31, as I have examined it, is a fairly representative period for the year 1931. If I have taken a month in which citrus might be moving in volume but when other freight generally than perishable would be moving in much slighter volume so that the total volume being handled was less than an average, I would thereby have obtained a higher cost. I can confirm that by a conversation with the Terminal Train Master who stated that even in this period we have taken there was the watermelon traffic that had a little effect on his average costs as he felt but, as I say. that is hearsay. It is just a practical man's opinion. Taken on the basis [fol. 1398] that is used in the yard operations, cars dispatched, it is slightly under the average for the eight months of the year, just slightly less than one thousand, I think, but it is so close to the average it is running very closely. From the check I have made this is, in my opinion, while only a partial study of cost, a conservative study from my standpoint; not an overstatement.

I stated I used for station service cost August, 1930, to July, 1931, which is, of course, the nearest current year that you could use. It is the current year, running to the end of July of this year.

Mr. Eshelman: We offer that as Exhibit 229.

(Said document, previously marked for identification, was received in evidence, marked Exhibit No. 229, Witness Bonn).

Cross-examination.

By Mr. Gwathmey:

In answering Mr. Eshelman's last question as to the tonnage that moved during the test period I did not say that that fairly represents the average movement of per-

ishable traffic. It represents the average movement of all traffic. It is not a high month for perishables. I understand there was no Florida citrus moving at all during that month. The unit cost for cars despatched during 1931, and particularly during the test period, August 18 to 31, 1931, is comparable with that for 1929, a banner year, when [fol. 1399] we were handling through the terminal a heavier traffic than normal.

The figures I obtained as representing cost per car nec- [fol. 1400] essarily vary with the number of cars handled. If your divisor is greater your costs are down. If your divisor is down your costs are up if you have the same expense. The cars handled into that terminal in August of 1931 may not represent a normal movement of the B. & O. Railroad into that terminal. We may have handled more cars in 1929. The 19,151 might have gone up to 25,000 or 30,000. Our experience is not different from that of most other railroads in the country as to the matter of business they are handling at this time. We are dropping all the time. I will undertake to give you the number of cars that were handled into that terminal during the month of August for each of the three years prior to 1931. In getting this number of cars for these prior years you have got to take into consideration the expense in those periods. In other words, I do not know what use you are going to make of this. You take in 1928, from the running yard operation records, we operated on a unit cost per car dispatched of $2.20. Now, that might be called a normal year. We operated in 1929 on a cost of $1.91, in 1930, $1.84 and in 1931, $1.95, showing that we were operating pretty close to 1929 where we had the greater number of cars.

The item of labor of $63,857.96 on page 8 of my exhibit is platform and team track common labor for handling, unloading of the car and also cleaning out the cars. We ab- [fol. 1401] sorb the unloading charge in Philadelphia. It is shown in the cost of the station service.

JAMES L. HEYWOOD, having been previously sworn, was recalled and further testified as follows:

Examined by Mr. Eshelman:

I am a Special Agent in the Accounting Department of the Pennsylvania Railroad. I have been in the Accounting

Department of the Pennsylvania Railroad for 16 years. I have had prepared under my supervision and direction a certain cost study showing partial terminal costs at New York and at other points. Those studies are true and correct to the best of my knowledge and belief.

Mr. Eshelman: The first study which is entitled, "Expense of Handling Perishable Freight—Harsimus Cove Yard to Piers 27, 28 and 29, New York," we ask to be received for identification as Exhibit No. 230.

(Said document was thereupon marked Exhibit No. 230, Witness Heywood, for identification only.)

Witness: I have prepared a statement for use in connection with this exhibit. The purpose of this exhibit is to show partial costs of terminal services performed in handling a loaded car of perishable freight for delivery at New [fol. 1402] York; also the methods used in developing cost. In making the study we followed the formulæ employed by Mr. Neal of this Company, in Docket 16939, except as to marine cost. As to the latter, he used the figures from a study of Francis Lee Stuart, which covered the month of October, 1924, while I have used current figures. Our check of the movement indicated the test period selected, April 16th to April 30th, 1931, to be fairly representative. The expenses included were those considered to have a direct rather than a remote relation to terminal cost. No overhead cost of taxes other than property taxes were included.

On page 1 is shown a summary of the cost which amounts to $29.60 per loaded car.

On page 2 is shown a summary of the yard cost with reference to following pages covering the detail substantiating the expenses shown under each primary account.

As to Accounts 202—Roadway Maintenance; 212—Ties; 214—Rails; 216—Other track material; 218—Ballast and 220—Track Laying and Surfacing.

The yard proportion of freight expenses for the entire division on which the yard under review is located for the three years, 1928, 1929 and 1930, also, the yard locomotive—engine hours—freight for the same period were ascertained in order that the expense per engine hour for yard freight locomotives for each of the above accounts could be developed.

[fol. 1403] The expense per engine hour, multiplied by the engine hours of the particular yard under review for the

test period, will give the amounts shown at page 2 under each respective account included in this study, as computed from the basic figures shown on page 3.

I now come to the treatment of Account 208—Bridges, Trestles, Culverts; 210—Elevated Structures; 227—Station and Office Buildings, and 241—Wharves and Docks, as shown on page 3.

The total charge to expenses for the maintenance of structures in the yard under review was ascertained for the three years, 1928, 1929 and 1930. The expenses for each account were then reduced in order to arrive at the average per year, which was further reduced to the time covered by the test period on a proportionate basis.

I will next take up the treatment of Account 308—Steam Locomotives—Repairs, and Account 309—Steam Locomotives—Depreciation. In apportioning these accounts to this yard, it was necessary to ascertain the yard engine hours by classes of locomotives in use and then to develop the engine miles for each class by multiplying the hours by six, in accordance with I. C. C. rules. The miles for each class of engine were then multiplied by the rate per mile for repairs and depreciation. The rate per mile for repairs is based on analysis of actual cost, made separately for class [fol. 1404] and running repairs, whereas the rate per mile for depreciation is based on a rate of 4 percent of original cost of locomotives.

I am now coming to Accounts 377—Yard Masters and Yard Clerks; 378—Yard Conductors and Brakemen; 379—Yard Switch and Signal Tenders; 380—Yard Enginemen; 408—Operating Floating Equipment.

The amounts as shown on page 4 under these accounts were the actual wages paid during the test period in the yard under review.

I will take up next Accounts 382—Fuel for Yard Locomotives; 385—Water for Yard Locomotives; 386—Lubricants for Yard Locomotives; 387—Other Supplies for Yard Locomotives; 388—Enginehouse Expenses—Yard; 389—Yard Supplies and Expenses.

Freight proportion of yard locomotive expenses for the entire division on which the terminal under review is located was ascertained for the year 1930, also the yard locomotive—engine hours, freight for the same period, in order that the expense per engine hour for yard freight locomo-

tives may be developed for each of the accounts. The expense per engine hour was multiplied by the engine hours for the particular yard under review for the test period April 16 to 30, 1931, giving the proportion of these accounts applicable to the period under study.

[fol. 1405] On page 5 is shown the yard engine hours and cars received and dispatched (loaded and empty) also classes of locomotives and hours worked by days for the test period at Harsimus Cove Yard which were used in developing the proportion of expenses used in this study.

Page 6 shows the taxes assessed by the State of New Jersey on certain facilities used in connection with the New York delivery service, also the interest on investment in fixed property, which was based on the assessed valuation at the rate of 6 percent. The interest on locomotives was set up by using a per mile rate, which was developed by taking 6 percent per annum on the original cost of locomotives.

As shown in summary of yard costs on page 2, the total expenses have been stated upon a per car basis by dividing by the total cars handled during the test period. The average expense per car was then multiplied by the total cars handled in the perishable trade to ascertain the cost of handling perishable traffic. This was divided then by the number of loaded cars of perishable freight.

On page 7 is shown a summary of the marine costs. References are indicated to the pages which cover the detail substantiating the expenses shown under each primary account.

Under Maintenance of Way and Structure expenses are shown: Accounts 227—Station and Office Buildings; 235—Shops and Enginehouses; 275—Insurance.

[fol. 1406] Account 227 shows the cost of repairs to Boatmaster's office, years 1928, 1929 and 1930. It was necessary to prorate the repairs on the basis of 33 1-3 percent to the Long Island Railroad and balance considered as applicable to the Pennsylvania Railroad. A further prorate of the balance was necessary to determine proportion applicable to harbor terminal service, 60 percent being assignable thereto. An average per year was developed and 15/365 of this average was assignable to the test period. This figure was then assigned to perishable freight service on the ratio of dispatchments to Piers 27, 28 and 29 to total dispatchments. The 33 1-3 percent applicable to the Long

Island Railroad is based on services performed account of that company as related to the total services rendered account of the New York Zone, of which that company is now a part. The 60 percent assignable to harbor terminal service was arrived at on the basis of the revenues received on account of harbor terminal services to the total revenues received from the three services, viz: harbor terminals, ferries, and steam towing. It is to be noted that under Account 275 the insurance on the boatmaster's office is apportioned on the same basis as that shown under Account 227 for repairs.

Account 235 shows the cost of repairs to Hoboken marine shop for years 1928, 1929 and 1930. It was first necessary to prorate this amount on the basis of 69.5 percent to harbor [fol. 1407] terminal service, after which the average per year for repairs was developed and 15/365 of the average was assigned account of the test period. This amount was then assigned to tug boats on the basis of 52.64 percent and to car floats on the basis of 6.6 percent, it then being necessary to ascertain what portion was applicable to floatage between Harsimus Cove, New Jersey, and Piers 27, 28 and 29, New York, this being assigned on the basis of tug boat and car float hours in that service to all other service, which was tug boats 12.75 percent, car floats 25.12 percent. The 69.5 percent was based on labor cost of repairs at Hoboken Shop, this being the percentage of repairs on harbor terminal floating equipment to total repairs at Hoboken Shop for the year 1928, which is figure being currently used. The 69.5 percent is further distributed to tugs 52.64 percent, steam lighters 9.12 percent, car floats 6.6 percent and barges 31.64 percent. The 12.75 percent was developed by taking from the tug logs the percentage of hours of the tugs in service between Harsimus Cove, New Jersey, and Piers 27, 28 and 29, New York, to the total tug hours. The 25.12 percent for car floats was developed in a similar manner, with the exception that it was taken from the car float dispatch sheet. Strictly marine repairs are made at the Hoboken Shop.

It is to be noted that Account 275, in part, is also distributed on the same basis as shown under Account 235.
[fol. 1408] Under Maintenance of Equipment are shown on pages 8, 9 and 10 the following accounts:

Accounts 302—Shop Machinery; 323—Floating Equipment—Repairs, Tug Boats, Car Floats; 324—Floating Equipment—Depreciation, Tug Boats, Car Floats; 325—Floating Equipment—Retirements, Tug Boats, Car Floats; 333—Insurance—Equipment.

Accounts 302, and 333 in part, have been distributed in this study on the same basis as Account 235.

Considering now Accounts 323 and 324, also Account 333 in part. The service hours between Harsimus Cove Yard and Piers 27, 28 and 29 were multiplied by the expense per hour for repairs, depreciation, and insurance, by class of tugs and floats. The expense per hour rate is based on a study made, which covers the actual expenses divided by actual hours of service performed by the various classes of floating equipment in the harbor for the period under study.

Accounts 325 and 333 in part, were assigned on the ratio of the tug and float hours as shown in Account 235.

Under transportation expenses at pages 11 and 12: Accounts 408—Operating Floating Equipment, Tug Boats, [fol. 1409] Car Floats; Supervision—Boatmaster and Expense; Account 414—Insurance, Cargo.

Account 408 shows the cost per hour for coal or fuel oil, lubrication, supplies and wages, multiplied by the hours of the individual tugs and car floats in perishable freight service in addition to which the wages of the boatmaster, his office and operating forces are shown as separate item. The wages and office expenses were first prorated between harbor terminal service and other. The portion assigned to perishable freight service is on the ratio of dispatchments to Piers 27, 28 and 29 to total dispatchments.

Account 414 covers premiums for fire and marine insurance on cargoes on floats in harbor terminal service during the years 1928, 1929 and 1930. The premiums for the three years were then reduced to an average for one year and 15/365 of this was assigned to the test period. This was then assigned to perishable freight service on the ratio of float hours.

Taxes as assessed by the State of New Jersey on Hoboken Marine Yards and Shops, as shown on page 13, were assigned on the same basis as in Account 235.

Taxes assessed on floating equipment were assigned to perishable freight service on the ratio of tug and float

hours. The interest on investment in fixed property was based on the assessed valuation at the rate of 6 percent, [fol. 1410] and was then assigned to perishable freight service on the same basis as under Account 235.

The interest on floating equipment is based on the service hours account of Piers 27, 28 and 29, multiplied by the cost per hour.

As shown in the summary of marine costs on page 7, which has been stated upon a loaded car basis by dividing the total loaded cars handled in perishable traffic during the test period into the total expenses.

On page 14 is shown a summary of the station cost with detail substantiating the expenses shown under each primary account.

Accounts 373—Station Employees; 376—Station Supplies and Expenses.

The actual expenses charged to these accounts for the particular station for the month of April 1931, were used. The total expenses were then divided by the number of loaded cars handled in the same month, in order to obtain the average expense of handling one loaded car.

Accounts 227—Station and Office Buildings; 241—Wharves and Docks.

The station maintenance for the three years, 1928, 1929 and 1930, was ascertained and reduced to a monthly average. This monthly average was then divided by the number of loaded cars handled for the month of April, 1931, in order [fol. 1411] to arrive at the average expense of handling one loaded car due to maintenance of station.

The annual rental and fire insurance for Piers 27, 28 and 29 was reduced to a monthly average and divided by the number of loaded cars handled at that terminal, for the month of April, 1931, in order to arrive at the average rental and insurance expense per loaded car; also shown on this sheet is the number of perishable cars, separated as to carload and less carload, inbound and carload outbound.

Mr. Eshelman: We ask that that be received as Exhibit No. 230.

(Said document, previously marked for identification, was received in evidence, marked Exhibit 230, Witness Heywood.)

Witness: I have prepared a similar study covering partial terminal cost of handling perishables at Pittsburgh.

Mr. Eshelman: We ask that this be marked for identification Exhibit 231.

(Said document was thereupon marked Exhibit 231, Witness Heywood for identification only.)

Witness: The method used in preparing this exhibit is similar to that in connection with determining the yard and station costs in New York, with the exception that in New York we were required to use the rental for the piers, whereas in Pittsburgh as we own the property we included the taxes and interest on the investment therein. With that [fol. 1412] exception they are practically the same.

Mr. Eshelman: We ask that that study be received as Exhibit No. 231.

(Said document was received in evidence, marked Exhibit No. 231, Witness Heywood.)

Witness: These studies do not purport to show the complete or full terminal cost to the carrier incident to the handling of this traffic; only partially. It may be stated that no expense has been included for such items as superintendence, injuries to persons, small tools, supplies, water stations, fuel stations, other expenses, freight train car repairs, work equipment repairs, general expenses, traffic expenses, loss and damage—freight. No transportation costs have been included for fuel, simply f. o. b. cost at the mines. No transportation costs have been included for ties, rails or any other material handled on the Pennsylvania Railroad. Payments made for use of refrigerator cars are not included as an item of cost.

Mr. Menaugh testified that during the period from September 1, 1928, to June 30, 1929, 352 additional crews were necessary at the Philadelphia produce terminal to handle perishable traffic expeditiously. The rate per engine hour for such service on the Philadelphia Terminal Division during that period was $7.4756. The total amount of money represented by these additional crews would be $21,051.29. [fol. 1413] Mr. Beal stated that he considered dead freight almost anything other than perishables and that the Florida East Coast does not handle a considerable amount of dead freight. The annual report of the Florida East Coast for 1929 shows it handled 79,607 tons of citrus fruit; all other fruits and vegetables 213,794; coal and coke 51,449; other

products of mines 43,130; clay, gravel, sand and stone 334,318; lumber and other like articles 418,259; refined petroleum and its products 193,314; cement, lime, brick and sewer pipe 139,229; all other freight 496,265, a total tonnage of 1,868,365. Perishables constitute 14.9 percent of the total tonnage. Upon a per car basis it would show a percentage of 26.6 percent. That includes traffic in both directions, as far as I understand, from the annual report.

We consider the period which I used for my study was a representative one. We scrutinized the record of cars handled and decided that the period from April 16 to 30th appeared to be a representative period. We do not think it is an over-statement of average costs.

Cross-examination.

By Mr. Gwathmey:

The first item on page 2 of my Exhibit No. 230 covers maintenance of way and structures. That part of it relates to the Harsimus Cove Yards, the 407.39. I have not shown [fol. 1414] in the exhibit the termini of the tracks that are covered by the item of maintenance of track. It covers the yard limit. We do not consider the yard to have any main line track. The yard comes from a certain point (I do not recall the street) and it is yard track from there on as considered by our division engineer. It comes off our main line. As I recall it, we began to treat it as a yard track from Brunswick Street but I would not want to be positive. I can verify that perhaps a little bit later and give it to you definitely. I am not sure I have the record here. I believe Brunswick Street is considered to be the yard limit.

On page 14 of this exhibit I show an item of $66,674.50 covering labor at station paid the contractors, and so forth. That includes unloading charges. It is the unloading service performed at Piers 27, 28 and 29. It is unloaded from the cars which are on the floats and we absorb that. There is no tariff in effect there for which we charge for unloading service. We unload the cars and put the lading in a heap, as I might explain, on the piers. It is later required by the rule to be separated into its various grades and qualified separators are necessary to do that. They are called sorters and we are employed by the receivers and not by the railroad.

This item of $66,674.50 covers the cost of labor paid in connection with unloading of the traffic on the piers and [fol. 1415] placing it on the platform. The Pennsylvania Railroad does not own the land and buildings at Piers 27, 28 and 29. They are owned by the City of New York. No one can own any pier property in New York City. We use that property under lease from the City of New York. The item of $278,654 represents the rental charge which the Pennsylvania Railroad pays to the City of New York for that property. I have not compared that charge with charges for similar rentals at other places because we own all others to my knowledge. That figure includes the entire rental of the property known as Piers 27, 28 and 29. If the auction house was a part thereof, it includes that.

There may be a few cars that are taken over to the piers by mistake which are reconsigned. Ordinarily cars intended for reconsignment would not be delivered at those piers. The reconsigning is done at Harsimus Cove.

We own the terminals in Pittsburgh. If there are cars to be reconsigned there, if possible they are picked up in the yard before they are pulled into the terminal proper which is more or less similar to Harsimus Cove where we try to get them before they get into the lineup on the tracks of the produce terminal.

We have a separate building at Pittsburgh entirely for produce. Nothing else is handled there and the tracks adjacent thereto are considered produce tracks to that termi- [fol. 1416] nal. The 16th Street Yard is where perishable freight goes through before it is delivered to the produce terminal. I have included a portion of those yards in my cost studies applicable to a per car basis. We based it on the total cars handled in the yard because we could not figure out specifically the cost applicable to perishables in the yard.

It is possible that a car of perishables will come into that yard, be reinspected, re-iced and then reconsigned and forwarded to some other destination. I am not in position to say whether it is a common practice.

I do not think there is any real re-icing done at Harsimus Cove. Cars do come into Harsimus Cove and are moved through Harsimus Cove to other destinations than Piers 27, 28 and 29 but that was not considered as a perishable car moving into that yard. We did not consider those cars.

These cars shown on the statement are those that went through the yard over to Piers 27, 28 and 29 and back again, empty or loaded. When I say loaded it means loaded at Piers 27, 28 and 29 with such as pineapples, in dry refrigerator cars. There are not any reconsigned cars in that figure because in the period we took we were unable to find any reconsignments.

Redirect examination.

By Mr. Eshelman:

If there were any cars of perishables to be reconsigned [fol. 1417] in the 16th Street Yard at Pittsburgh the cost would not be embodied within the final figures which I have shown for Pittsburgh; only in respect that it was represented in the per car basis of handling within the yard.

You are correct in understanding that in figuring my expense at the 16th Street Yard I divided the expenses so assigned as between the cars handled there and then put that amount per car against the cars which were eventually handled in the produce terminal itself. Reconsigned cars were not considered as cars handled.

In figuring out the cost of a car handled in a yard we had to take the total cars in and out of the yard regardless of what they were. We included them all in the yard to get down to a car rate.

By Mr. Eshelman:

That was to get the cost per car of handling in a yard, regardless of what the commodity was, we took what was known as handling in and out of the yard, not how many times it was moved over the yard. In figuring the cost of handling in the 16th Street Yard I have to divide by the number of cars handled there to get the cost per car but having gotten the cost per car I only multiply that by the number of cars eventually handled in the produce terminal. 13,529 is the total cars that were handled in that particular 16th Street Yard during the test period. In general terms [fol. 1418], that means handled in and out of the yard.

H. A. Bassett was recalled and further testified on cross-examination as follows:

Examined by Mr. Gwathmey:

In my Exhibit 226 Road A was the Long Island, Road B the Virginian, Road C the D. & H., and D is the New York Central.

An adjournment was taken until October 20, 1931.

[fol. 1419] Washington, D. C., October 20, 1931.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

R. J. Doss, having been previously sworn, was recalled and further testified as follows:

Examined by Mr. Gwathmey:

I have previously testified in this case. At this time I desire to submit some comments on the testimony and exhibits that have been offered by Witness Kentfield. At the outset I want to call attention to the fact that Mr. Kentfield, now member of the Auxiliary Committee, Eastern Trunk Line Association, with headquarters in New York, is the same Mr. Kentfield who, during 1908, was an official of the New York, New Haven and Hartford Railroad and who conducted for that line correspondence referred to by Witness Ketner, and as is set out in detail in Mr. Ketner's Exhibit 48. By reference to Pages 14, 17, 18, 20 and 22, of that exhibit, it will be observed that when in 1908 consideration was being given to divisions of the rates on citrus fruit from Florida to Eastern and New England points established as result of the Commission's report and order in Docket 1168, Mr. Kentfield, then as an official of the New Haven, was insisting that the proper basis of divisions was [fol. 1420] a revenue prorate. In other words, when these rates were reduced in 1908, he wanted to divide them upon a revenue prorate; that is, percentages, using divisions of former rates as factors. The divisions of the reduced rates of 1908, which were agreed upon, were substantially upon a revenue prorate. These rates and the divisions thereof remained in effect, except for the general increases and reductions, from 1908 down to 1928, when they were revised under

the Commission's report and order of July 10, 1928, in I. C. C. Docket 16939. The most which Mr. Kentfield insisted upon in 1908 was that the 1908 reductions be taken care of on a revenue prorate, using the entire rate from initial point of shipment as factors. That is exactly the basis which the Florida lines insist should be observed in dividing the revised rates of 1928.

Mr. Kentfield, in stating the general views of the Eastern lines with respect to the question of divisions of citrus fruit, after outlining what he understands to be the facts, indicated that there is just as much necessity for an early straightening out of the chaotic condition as to commodities other than citrus fruit as there is for treatment of the divisions on citrus fruit. I am in accord with Mr. Kentfield's view that the chaotic condition to which he refers should be straightened out as promptly as possible, but the conditions which caused the filing of our complaint do not [fol. 1421] exist in connection with any of the rates to which Mr. Kentfield refers, other than those applicable on citrus fruit from Florida to the East. Admitting that there is confusion in connection with the divisions of the other rate to which Mr. Kentfield refers, there is not a single instance except on citrus fruit from Florida to East, where, out of reduced rates, one set of carriers has undertaken to substantially increase its proportions at the expense of another group of carriers. Mr. Kentfield refers specifically to divisions of rates on soda products, cement and roofing material. A very careful check has been made by the Accounting Department of the Atlantic Coast Line Railroad of the settlements which it has made on shipments moving under these rates, and, in not a single instance, has the Coast Line made settlement except upon the basis of revenue prorate; that is, percentages using divisions of former rates as factors, which, as the record shows, is the very basis which we are insisting should be observed in dividing the rates on citrus fruit from Florida.

I have handled the matter with the other southern lines and find that they likewise, as a general proposition, have been making settlement on these southbound moving commodities observing a revenue prorate. There are some minor exceptions but they are caused in every instance by the arbitrary methods followed by the northern lines.

[fol. 1422] I happen to have some personal knowledge of

the divisions of the rates on cement to which Mr. Kentfield refers. Subsequent to the revision of the through rates on cement between the south and the east under I. C. C. Docket 15806, the Southern lines, in dividing rates from the Eastern mills to the South, observed a revenue prorate basis, but there developed a movement from a point in the Birmingham, Alabama, district to the East where the Eastern lines had the settlement in their own hands. The Eastern lines made settlement by retaining for themselves revenue on basis of the sixth class specifics beyond the gateways in some instances and the sixth class specifics as of June 24, 1918, increased 1 cent, plus 33 1/3 percent and minus 10 percent in other instances. On either basis, the revenue retained by Eastern Lines is in excess of what they would have received had they observed the full Southern cement scale for their distances from the gateways. Failing to secure any satisfaction from the destination lines, the Southern lines which had handled the cement from Birmingham, in retaliation, made settlements on certain of the southbound shipments which it handled on basis of retaining its local rates from the gateways. Of course, it is a terrible thing when one of the Southern lines happens in an isolated case, to get hold of a few dollars which may belong to the Eastern lines, but apparently the Eastern and New England [fol. 1423] lines have little difficulty in soothing their conscience in having already retained on this citrus fruit movement from Florida approximately $1,200,000 more than they received out of the former rates, not to speak of their not assuming any part of the reductions which were required under the Commission's order in Docket 16939.

While I am on this question, and as representing the general attitude of the Trunk Lines with respect to divisions of revised rates on commodities moving from the South to the East, I want to call attention to my Exhibit No. 232 in which I have reproduced letter written by Mr. C. McD. Davis, Traffic Manager, Columbia, Newberry & Laurens Railroad, dated Wilmington, North Carolina, September 19, 1931, addressed to the Assistant General Freight Agent of the Pennsylvania Railroad, and the reply received from Mr. W. B. Hopkins, General Freight Agent, Pennsylvania Railroad, dated Philadelphia, September 24th. This correspondence involves divisions of the through rate of 25.5 cents per 100 pounds on cullet or broken glass from Colum-

bia, S. C., to Salem, N. J., established under the Commission's decision in I. & S. Docket 3459 of November 8, 1930. The through rate established from Columbia to Salem is 25.5 cents per 100 pounds, this being 15 percent of the Docket 13494 first class rate. You will observe that the Pennsylvania Railroad demands beyond Norfolk propor-
[fol. 1424] tion of 23 cents, leaving only 2.5 cents for the two lines which handled the shipment up to Norfolk. The total distance via route of movement to Norfolk is 480 miles, while the distance beyond is 299 miles. In other words, for having performed approximately 38 percent of the service, the Pennsylvania Railroad is demanding and retaining 90 percent of the total revenue.

Mr. Gwathmey: We offer this exhibit.

(Said document, so offered, was received in evidence, marked Exhibit No. 232, Witness Doss).

Witness: The divisions of the revised through rates on naval stores from the south to the east, established in compliance with the Commission's decision in I. & S. Docket 3253, is another illustration. Prior to the publication of these through rates, there was not a complete line of commodity rates on naval stores from the south to the east. Generally speaking, the few commodity rates which were in effect divided by allowing the eastern lines proportions which were less than their established class specifics. However, in those instances where through class rates applied the eastern lines required proportions based upon their class specifics. Both rosin and turpentine are rated 6th class in the governing classification. Consequently where class rates were applied, the eastern lines accepted their 6th class specifics. Under I. & S. Docket 3253, the through rates on rosin, carload, were made 19 percent and on turpen-
[fol. 1425] tine, carload, 29 percent of the Docket 13494 class rates. Immediately upon the establishment of through rates on this basis, the Eastern lines have demanded and retained revenue on basis of their 6th class specifics on rosin and their 5th class specifics on turpentine. To New York, for example, in dividing the through rates from Valdosta, Georgia, of 38 cents on rosin and 58 cents on turpentine, the eastern lines have demanded and retained revenue on basis of 23.5 cents on rosin and 28.5 cents on turpentine, leaving only 14 cents and 29.5 cents, respectively, for the

lines up to Richmond.. The haul to Richmond is almost double the haul beyond.

Beginning at page 497, Mr. Kentfield testified that originally the normal basis for determining the specifics of the northern lines on citrus fruit from Florida points to Trunk Line and New England territories was third class specifics which were stated in cents per 100 pounds and which were converted to per box units by taking 80 percent of the per 100 pound factors; that this normal basis, however, was applied to interior points only and was never applied to the ports, to which latter points divisions were first established.

I do not agree with Mr. Kentfield that the third class basis can be considered the normal basis. The first memorandum reproduced in Mr. Kentfield's Exhibit No. 108 [fol. 1426] shows that, as early as September 25, 1899, the commodity specific on this traffic to Boston and Providence was 18 cents, and to all interior New England points 23 cents per box. These proportions were, of course, lower than the third class specifics, which, during that period, ranged upwards of 33 cents at Boston. During the period when these proportions were first established, there was practically no movement of Florida citrus to interior Eastern points and, consequently, there was no necessity for through rates and divisions. The fact that the third class specific may have been used beyond Richmond in determining rates to non-important interior points does not establish the fact that the third class specific was the normal basis. On the contrary, it was the maximum basis. I agree with Mr. Kentfield's view that these rates on citrus from Florida to the East were, during the early days, very largely influenced by water competition, but the water competition began at Jacksonville and not at Norfolk and its influence was felt not only at the eastern port cities, but at the interior points as well.

The rail-and-water rates which the Florida lines established for application via rail to Norfolk, thence steamer beyond, were themselves made in competition with the all-water route from Jacksonville and with the more important rail-and-water route through Savannah. Mr. Kentfield [fol. 1427] (page 499) undertakes to leave the impression that, in establishing through all-rail rates to meet water competition, the principal shrinkage was made by the eastern lines, and, in substantiation of this, he points out that

south of Richmond or Portsmouth the Southern lines received only slightly less all-rail than on rail-and-water traffic, while Northern lines necessarily had to take divisions comparable in some degree to the water proportion north of Portsmouth or Pinners Point. For example, he shows in his Exhibit No. 106 that to Philadelphia the Northern lines' proportion north of Richmond in 1890 was 11 cents, as compared with the water factor of 6.7 cents north of Portsmouth. Exhibit No. 106 also shows that the rail proportions beyond Richmond were, to New York 13 cents, and to Boston and Providence 19½ cents, whereas the steamer lines' proportions beyond Norfolk were 6.7 cents and 9.3 cents, respectively. In other words, while the rail lines beyond Richmond received only 4.3 cents per box higher than the steamer lines' proportion beyond Norfolk to Philadelphia, they received to New York 6.3 cents and to Boston and Providence 10.2 cents more than the steamer lines. The truth of the matter is that the proportions which the lines from Jacksonville to Norfolk received on rail-and-water route from Jacksonville to the east, and the fact that the rail lines up to Richmond accepted less on all-rail traffic [fol. 1428] than they received to Norfolk on traffic moving via rail-and-water illustrates the lengths to which the Florida lines have gone in an effort to assist the eastern lines in the handling of this traffic. The Florida lines not only have applied these depressed proportions up to Richmond, arrived at in the manner which I have described, in dividing the rates to the eastern port cities, but they have also accepted the same proportions in dividing the through rates to points in the interior.

As a matter of fact, our rates to Richmond proper have been very greatly depressed. At no time since the rail-and-water route through Pinners Point was opened have the rates to Richmond and Norfolk been upon a higher basis than in effect via this rail-and-water route through the Virginia gateways to Baltimore. I have copy of the Savannah, Florida & Western Railway tariff in effect during the 1888-89 season which shows that the rate from Jacksonville via water direct to Baltimore was 30 cents. The rate via the rail-and-water route through the Virginia gateways was 35 cents and this rate applied to Richmond and Norfolk. That this rate to Richmond was greatly depressed is indicated by the fact that the same tariff provided rates from Jack-

sonville from beyond to Macon, Georgia, 35 cents, to Atlanta, Birmingham and Montgomery 40 cents, to Chattanooga 50 cents, to Nashville 60 cents and to Knoxville 73 cents.

[fol. 1429] Whatever may have been the situation as to rates and divisions on citrus fruit from Florida to the east prior to the Commission's decision of June 25, 1908, in Docket 1168 (14 I. C. C. 476), a new deal, both as to rates and divisions, was had as result of that order. Through per box rates were prescribed, and divisions of those rates to and beyond Richmond were fixed and agreed upon by the lines in interest. The box of Florida citrus upon which those rates and divisions were fixed and agreed upon in 1908 weighed 90 pounds, just as it did in 1928, when the present rates were prescribed, and just as it does today.

Mr. Kentfield, page 508, introduced Exhibit No. 113 which purports to compare the Eastern lines' specifics as of December 15, 1906, and as of November 9, 1928, with the through rates from representative Florida origins to representative Eastern destinations in effect on these respective dates. However, in arriving at the specifics which he shows as being effective as of November 9, 1928, he took the former per box specifics and converted them to per hundred pound basis, using 80 pounds per box, thereby bringing about an increase of 12½ percent in the proportions of the Eastern lines. The exhibit shows the percentages of the through rates reflected in the Eastern lines' divisional proportions. Although Mr. Kentfield does not definitely so state, I gather that the purpose of this exhibit is to convey [fol. 1430] the impression that, on the average, the proportions of the Eastern lines now bear practically the same percentage relationship to the through rates as they did in 1908, and that, consequently, there has been no material increase in their divisions. He states in filing the exhibit, page 508, that from Jacksonville to Albany, the Eastern specific in 1908 was 40.1 percent of the through rate of that date, while today it is only 41.7 percent of the current through rate.

Either through oversight or design on the part of the compiler, Exhibit No. 113 is improperly prepared and does not reflect the true state of affairs. Even as it stands, Boston, Providence and Springfield are the three points at which the percentage increases in the relationship of the

specifics to the through rates are the greatest. It is significant, however, that the exhibit omits the 1908 percentage increase at Providence. With the exception of the comparisons at Baltimore, Boston, New York, Philadelphia and Washington, the entire exhibit is incorrect and misleading. While the rates and divisions opposite each line A of the exhibit are alleged to be the rates and divisions as of December 15, 1908 and the rates are those which were in effect on that date, the divisional specifics, with the exception of those to Baltimore, Boston, New York, Philadelphia and [fol. 1431] Washington, are the specifics which were used in dividing the higher rates which were in effect just prior to the revision resulting from the Commission's report and order in Docket 1168. The exhibit is principally in error in that it shows the December 15, 1908, specific, to Albany 25 cents, when the correct figure is 21 cents. To Altoona the exhibit shows 26½ cents; the correct figure is 19½ cents. To Buffalo 20, should be 20½; to Cumberland, Maryland, 26½ should be 19½; to Harrisburg, Pa., 14½ should be 14; to Rochester 25 should be 20½; to Scranton 25, should be 20½, and to Syracuse 25, should be 21. The correct specifics as of December 15, 1908, are shown in my Exhibit No. 21.

Reference to my Exhibit No. 21 will show that while the division sheets which were issued to show the divisions of the rates which became effective December 15, 1908, in compliance with the Commission's order in Docket 1168 were not published until June 1, 1909, the divisions were actually applied as of December 15, 1908. They were, in fact, the divisions which were agreed upon in advance of publication of the rates, and, if weight is to be attached to Exhibit No. 113, it should be reworked to show the correct information.

The exhibit is also misleading in that it shows the rates from Jacksonville, from beyond, as of December 15, 1908, compared with the rate which became effective November 9, 1928, from Jacksonville, proper.

[fol. 1432] Mr. Kentfield, at page 509, refers to the fact that under the Commission's decision in the 5 percent case, 12 I. C. C. 325, the Northern carriers were entitled to an increase of 5 percent in their revenue on Florida citrus fruit, but that they did not secure it. Of course, the Eastern lines were to secure a 5 percent increase, their proportions of these rates, provided the through rates were increased to reflect the 5 percent increase of the Eastern lines.

The through rates on citrus from Florida were not so increased, due partly to the unwillingness of the Eastern lines to increase the all-rail rates when under the Commission's decision there could be no increase in the rail-and-water rates and partly to the inability of the Eastern lines to bring about a corresponding increase in the rates from California. It was through no fault of the Florida lines that the Eastern lines did not obtain the 5 percent increase in their proportions on Florida citrus.

Mr. Kentfield, beginning at page 509, refers to the fact that no increases were made in the proportions of the Eastern lines under Ex Parte 57, the 15 percent case (45 I. C. C. 303). The Southern lines are of the opinion that the Eastern lines are not entitled to any increase in their citrus fruit divisions because of the 15 percent increase under Ex Parte 57 and Ex Parte 69, since the through rates were not revised to reflect these increases. The Southern lines [fol. 1433] feel that the failure to increase the through rates on citrus fruit and other commodities from the South to the East, following the Commission's decisions in Ex Parte 57 and Ex Parte 69, was not due to negligence or lack of cooperation on their part, but it was due to circumstances and events which took place during that period and over which the Southern lines had no control. The Commission's original order of June 27, 1917, (45 I. C. C. 303) in Ex Parte 57, authorized a general increase of 15 percent in the intraterritorial class and commodity rates within the East. In supplemental order of March 12, 1918, interterritorial class and commodity rates between the South, on the one hand, and the East, on the other, were allowed to be increased by amounts sufficient to afford the Eastern lines an increase of 15 percent in the proportions which they received in dividing the through rates.

On March 19, 1918, the Eastern lines notified the Southern lines that their divisional specifics beyond the Virginia-Maryland gateways would be increased 15 percent effective May 1st, 1918, and called upon them to revise the through rates accordingly. This was absurdly unreasonable since, even if there had been no complication, the enormous amount of clerical and printing work itself would have consumed several weeks, instead of the 12 days given the Southern lines in which to compile, print and file the new tariffs. [fol. 1434] There were, however, a number of complica-

tions resulting in questions which the Eastern lines themselves at a joint conference held in Philadelphia on April 2, 1918, could not answer. Furthermore, the Eastern lines had not furnished the Southern lines with the revised divisional proportions upon which to base the revised through rates.

At meeting between the Eastern and Southern lines, held in Pittsburgh, Pa., on April 4, 1918, it was agreed that the Eastern lines would later meet with Southern lines, furnish the new Eastern proportions, and assist in checking out the new rates, and that, in the meantime, the divisional proportions of the Eastern lines were not to be increased until corresponding increases could be made in the rates. It was also agreed that no further effort would be made to increase interterritorial rates on any commodity under the decision of the Commission in the 5 percent case, if such rates had not already been revised. I call particular attention to this agreement because it seems to me it puts at rest any contention at any subsequent time on the part of the Northern lines that they are entitled to add the 5 percent increase and then compound it by a further increase of 15 percent.

A subsequent conference of representatives of the Eastern and Southern lines was called at Louisville, Kentucky, for April 15, 1918, but the Eastern lines did not attend, and [fol. 1435] before anything definite could be accomplished, the Director General of Railroads, under date May 25, 1918, issued General Order 28, directing a general advance of 25 percent in all freight rates, effective June 25, 1918. This made it necessary that all rate and tariff forces of the individual railroads devote their entire energy to complying with said order. Section 20 of this order provided as follows:

"Where the Interstate Commerce Commission prior to the date hereof has authorized or prescribed rates, fares and charges, which have not been published at the date of this order, the rates, fares or charges initially established hereunder by applying the increases herein prescribed to the existing or published rates, fares or charges, may be subsequently revised by applying increases prescribed herein to the rates, fares and charges so authorized or prescribed by the Interstate Commerce Commission."

In these circumstances, all railroads were instructed to discontinue all work in connection with revision of tariffs under Ex Parte 57 until after the general revision had been made in rates in accordance with General Order 28.

Just as soon as work in connection with publishing the General Order 28 increases was out of the way, a meeting of Eastern and Southern lines was held in Richmond, Va., during July, 1918. The Southern lines at this meeting announced that they were prepared to go into the matter in [fol. 1436] detail and embody in an application to the Railroad Administration the readjustment necessary to yield the Eastern lines the Ex Parte 57 increase in the through rates. Considerable objection to the proposed increases developed on the part of the shipper members of the various traffic committees, and the final outcome of the deadlock that had been reached between the Director, Division of Traffic, and the Director, Division of Public Service, was the decision to refer the matter to the Interstate Commerce Commission for a ruling. This was done on July 18, 1919, in a letter which the Director General of Railroads wrote the Interstate Commerce Commission and in which he asked if it would then be proper to establish in conformity with the supplemental order in Ex Parte 57 certain proposed rates submitted in this letter.

As result, the Commission on July 22, 1919, entered an order of investigation known as Ex Parte 69. Hearings were held in which it developed that various interpretations as to the scope and purpose of the supplemental order had been made by various carriers. On November 14, 1919, the Commission advised the attorneys of the Railroad Administration that it was the intention in fixing the rates involved in Ex Parte 57 that the established differentials be maintained.

Accordingly, after considerable work, the Director Division of Traffic, on January 13, 1920, submitted a new [fol. 1437] basis of rates to the Commission for its approval. On February 10, 1920, the Commission advised the Director General that these rates were not on the proper basis and would not be approved, but that there was no objection to his proposal that the amounts of increase to be added to the through rates be arrived at on the "average basis"; that is, by averaging the amounts of increase

in the local rates beyond each of the gateways and adding such average amount to the through interterritorial rates, thus preserving existing relationships. This advice was received too late for action to be taken during the short remaining period of Federal Control, but immediately after the return of the railroads to their owners on March 1, 1920, the matter was again taken up.

At a meeting between the Eastern and Southern lines in Philadelphia on March 2nd, 1920, the Southern publishing agents were furnished certain figures and working sheets which had been compiled by the Eastern committees looking toward a uniform advance on the so-called average basis.

Before further definite progress was made, the executive officers of the Southern lines at a meeting in Atlanta on March 17, 1920, came to the conclusion that as under the provision of the Transportation Act which took effect on March 1, 1920, most of the carriers would thereafter have the protection of a government guarantee until September [fol. 1438] 1, 1920, and that as the Commission held authority to grant a general advance in freight rates, the revision of tariffs under Ex Parte 57 and Ex Parte 69 should be postponed. Publishing agents and Southern carriers were instructed to discontinue work on the revision. In addition to the fact that the earnings of practically all carriers were guaranteed until September 1, 1920, the executives were influenced in their decision by the fact that any such increase made at that time might embarrass the carriers in presenting their petitions for general increases (Ex Parte 74).

On March 20th, 1920, the publishing agents were instructed by the Eastern lines to proceed with the revision, but, as the agents did not have the concurrence of the Southern lines parties to the tariffs, they could not proceed.

In view of the March 17th, 1920, decision of the Southern executives, the Eastern lines on March 19th, 1920, gave notice that they were reissuing their divisional specifics to reflect increases on the "average basis." The Eastern division sheets were reissued accordingly to become effective May 15, 1920. A sample copy of such revised division sheets was filed by Witness Kentfield as Exhibit 114 at the second hearing of Docket 24069. Upon receipt of the Eastern lines' notice, one of the Southern lines took up the mat- [fol. 1439] ter with the Interstate Commerce Commission,

whereupon the Commission, on May 13th, 1920, wrote the Chairman of the Eastern Trunk Line Association that it appeared the Southern lines had not mutually agreed with the Trunk Line carriers on the divisional increases proposed by them nor had the Commission authorized such increases.

The Commission directed the attention of the Chairman of the Eastern lines to Section 208 (b) of the Transportation Act, 1920, stating this was done because the Commission assumed that in making the increases referred to the Eastern carriers had not given due consideration to the provisions of the law. Following this correspondence, the Eastern lines withdrew their division sheets of May 15th, 1920, which carried the increased proportions.

Mr. Kentfield (page 515) states that the Eastern lines have never felt that they had that measure of cooperation that they could rightfully expect from the Southern lines in obtaining the increased revenue on interterritorial traffic to and from the South to which they were entitled under the Commission's findings in Ex Parte 57 and Ex Parte 69. The record, of course, speaks for itself, but, having been intimately associated with the negotiations which ensued, I desire to make the observation that at that time the tariffs containing the through rates were published, in most cases, by the Southern lines. The Eastern lines were insisting [fol. 1440] that the tariffs be changed to reflect these increases, but when it came to the actual work of setting down the new rates and straightening out the many complications which were certain to follow, they were very lacking in cooperation. They sat back and demanded that the tariffs be increased, but they were unwilling, and apparently unable to render any effective assistance toward bringing about the change in the tariffs which they desired.

Mr. Kentfield's Exhibit No. 116, record page 519, is merely a statement of calculations which show what the proportions on citrus fruit beyond Richmond to representative Eastern destinations would have been had the through rates reflected the 5 percent and 15 percent advances, and, in addition, what the Eastern lines' specifics would have been had they received 40 percent increase rather that 33⅓ percent in the through rates under Ex Parte 74. The fact remains that the through rates were not increased either 5 percent or 15 percent for the good reasons which I have

already given, nor were the through rates on citrus fruit from Florida to the East increased 40 percent under Ex Parte 74. It seems absurd to contend that out of the through rates which were not changed under the 5 percent and 15 percent increases, there should have been an increase in the proportions of the Eastern lines at the sole expense of the Southern lines. It should also be recalled that the [fol. 1441] Eastern lines unsuccessfully undertook to increase these specifics 40 percent under Ex Parte 74.

Mr. Kentfield's Exhibit 117, page 524, Exhibit No. 118, page 527 and Exhibit 119, page 528, are merely comparisons of the proportions received by the Northern lines on certain classes contrasted with the corresponding local class rates from the gateways; also comparison of the citrus fruit specifics with the local third-class rates as of January 1, 1914, and subsequent.

These comparisons cannot mean anything more than similar comparisons of the proportions received by the Southern lines up to the gateways with corresponding local rates of the Southern lines to these gateways.

We admit that the intra-territorial rates of the Northern lines have since 1914 been increased in greater degree than the intra-territorial rates of the Southern lines, but I cannot see how that fact justified the allowance to the Eastern lines of increased proportions out of through inter-territorial rates which were not increased. Certainly the Southern lines have not been, and are not now, in such financial condition that they could have afforded, or can now afford, to allow the Eastern lines increased proportions out of through rates which have not been increased, or, as in the case of citrus fruit from Florida, which have been substantially reduced.

[fol. 1442] Mr. Kentfield's Exhibit No. 120 appears at record page 530. In my direct testimony beginning at record page 23, I described in detail the factors which appeared to me to have influenced the Commission in its findings as to the rates for the future on citrus fruit, Docket 16939. One of these factors was the Commission's conclusion that there was no longer any real gathering service up to Jacksonville or north Florida gateways. While this was not the only factor which the Commission apparently considered, it was, as I pointed out the only factor which the Commission did consider and which did not have the same

effect upon the Northern lines as upon the Florida and other Southern lines. For example, other factors which the Commission apparently considered were increased volume of movement, increase in number of perishables per freight train, and particularly the increased car loadings. Such advantages as flow from these factors accrue in substantially the same degree to the Northern as well as to the Southern lines.

But, had the Commission reduced the through rates solely because of the alleged change in the gathering service south of the Florida gateways, the most — the Northern lines could reasonably have expected the Southern lines to assume would have been the entire reduction. Surely if the rates be reduced because of a changed condition in Florida, this fact alone does not warrant the Northern lines in re-
[fol. 1443] taining increased proportions out of the rates so reduced.

In connection with Witness Kentfield's Exhibit No. 120, I ask particular attention to my Exhibit No. 31 and testimony relating thereto, appearing at pages 115, 116 and 117 of the record.

At page 533 of the record, Witness Kentfield testified that on August 10, 1928, Chairman Tilford, of the Southern Freight Association, wired Chairman O'Neil, of the Trunk Line Association, indicating that the Southern lines felt that the new rates on oranges and grapefruit should also cover lemons, limes, kumquats and pineapples, as suggested by the Commission at page 627 of I. C. C. 144, and asking if this was satisfactory to the Eastern lines. He further testified that Chairman O'Neil, after submitting these questions to the Trunk Lines, was directed to advise Chairman Tilford that in publishing the revised rates, the Trunk Lines desired the same destination grouping as had been used in connection with the new interterritorial class rates, and that, if Southern lines desired to make the new rates cover also lemons, limes, kumquats and pineapples, the Trunk lines would not object, provided that there would be no change in the earnings to them per hundred pounds in the divisional factors north of the gateways.

While we have no record of having received these advices from the Trunk Lines, I don't know that it makes much
[fol. 1444] difference, because really there was nothing left for the Florida lines to do but make a corresponding re-

vision in the rates on lemons, limes, kumquats and pineapples. The reservation which the Trunk lines instructed Chairman O'Neil to make, i. e., that "there would be no change in the earnings to them per hundred pounds in the divisional factors north of the gateways" couldn't have meant anything at the time, because, as Mr. Kentfield explained, the divisional factors north of the gateways were then stated in cents per box of 80 pounds. But, as I have amply shown, they were handling at the per box proportions packages which weighed an average of 90 pounds. It is clear that the reservation made by the Trunk lines would have resulted in their receiving out of the new rates on lemons, limes, kumquats and pineapples the same revenue per car as they were receiving out of the former rates. As I have also shown in my direct testimony, no sooner were the rates revised than the Eastern lines began retaining revenue more than 12½ percent in excess of that received by them out of the former rates.

Beginning at page 557 of the record, Mr. Hodkinson criticises the percentage basis of divisions submitted by me and covered by my Exhibit No. 18. He states at page 558 that it is not sufficient to say that the aggregate result under proposed percents approximates an actual revenue prorate; [fol. 1445] that they may be true as to the 1928-29 movement but a shift in the distribution of tonnage as between destinations would make necessary a change in the proposed percentages to maintain the revenue prorate result, and naturally the distribution as between destination changes from season to season.

In order to show that there has been no substantial change in distribution from season to season, I submit my Exhibit No. 233, which is a statement showing the distribution of Florida citrus fruit for the six seasons 1924-25 to 1929-30 to Eastern, New England and Central territory states. This information is taken from the U. S. Department of Agriculture, Bureau of Economics Bulletin, "Marketing Florida Citrus, Summary of 1929-30 Season". It will be seen from this exhibit that there has been only slight variations in the distribution from season to season of Florida citrus, particularly to the Eastern and New England states.

Mr. Gwathmey: We offer that Exhibit 233 in evidence.

(Said document, so offered, was received in evidence, marked Exhibit 233, Witness Doss.)

Witness: Mr. Hodkinson's Exhibit No. 125 is filed at record page 563, Exhibit No. 126 at page 566 and Exhibit No. 127 at page 566.

These are statements showing proportions accruing to the Northern and Southern lines, respectively, under the [fol. 1446] Southern lines' proposal, compared with the local rates south of Richmond, and (a) third class Docket 15879, (b) 40 percent of first class Docket 15879, and (c) sixth class Docket 15879, respectively, north of Richmond.

So far as the use of the classification basis, third class, beyond Richmond is concerned, there would be just as much reason and justification for the use of the classification basis, i. e., second class, south of Richmond. The commodity rates on citrus fruit from Florida to Richmond being 40 percent of first class are, in fact, only 47 percent of our second class rates which in turn are 85 percent of first class.

So far as concerns the percentage relationship of our proposed proportions up to Richmond to the present commodity rates to Richmond, I will say that there is nothing strange or unusual in our proportions on through traffic being only slightly lower than our commodity rates to the gateways. This has been the situation with respect to these divisions of rates on citrus fruit for many years. For example, on November 8, 1928, the rate on citrus fruit from Lake Wales, Florida, to New York, was 96 cents per box divided to Richmond 78 cents, beyond 18 cents. At that time the local rate from Lake Wales to Richmond was 81.5 cents per box. Consequently, our proportion to Richmond out of the through rate from Lake Wales to New York was [fol. 1447] 96 percent of our local rate to Richmond. As I have previously pointed out in my direct testimony in connection with my Exhibit No. 30, the former per box rate from Lake Wales to New York clearly appears to have been the foundation for the 40 percent of first class basis prescribed by the Commission on citrus fruit from Florida. The observance of this basis actually reduced our former commodity rate from Lake Wales to Richmond from 81.5 cents per box (equivalent to 91.5 cents per 100 pounds) to 88 cents per 100 pounds. Our proposed divisions of the present through rate of 106 cents per 100 pounds

from Lake Wales to New York are to Richmond 85 cents beyond 21 cents. The divisions of the former per box rate of 96 cents, equivalent to 106.7 cents per 100 pounds, were to Richmond 78 cents, beyond 18 cents, the per hundred pound equivalents of which are 86.7 cents and 20 cents, respectively. It follows therefore that we are suggesting divisions of the new rate of 106 cents per 100 pounds which represent a reduction of 1.7 cents per 100 pounds in the proportion accruing to the Southern lines, and an increase of 1 cent per 100 pounds in the proportions of the Eastern lines. The fact that our proposed proportion of 85 cents to Richmond is approximately 97 percent of the present commodity rate to Richmond proper, 88 cents per 100 pounds, does not seem to me to be at all relevant. The percentage of first class which was required to substantially [fol. 1448] continue the former per box rate from Lake Wales to New York when applied to the whole adjustment had the effect of reducing our former commodity rates to Richmond.

Mr. Hodkinson's Exhibit No. 129, is filed at record page 569, purports to compare the car-mile earnings of Southern lines, under Southern roads' proposal, with car-mile earnings for through distance, assuming entire haul was in the South and shipments moved under rates which would be applicable within the South. As I understand the exhibit, the car-mile revenues shown in column 1 are based on the K-2 1st class scale applied to through short line distances from origins to destinations plus L-2 1st class scale for South Florida hauls; then 40 percent of the 1st class rates so arrived at are multiplied by carload minimum weight of 32,400 pounds and the product divided by the through short line distances, origin to destination.

I understand the figures in column 2, with which those in column 1 are compared, are based on total revenue from origin to Richmond, as shown in my Exhibit No. 11, divided by the total number of cars moving from that origin via Richmond. The average per car revenues thus obtained are divided by short line distance to Richmond.

While I do not concede that the comparisons are in any way relevant, I desire to point out several incongruities in the method followed in making the comparisons.

[fol. 1449] First, the figures in column 1 are based on the published carload minimum weight of 32,400 pounds, while

those in column 2 are based on the actual average loadings, which are very much higher than the minimum. For example, the average per car loadings are, from Clearwater 33,478 pounds, from Fort Pierce 34,080 pounds and from Jacksonville 34,900 pounds. Had comparable loadings been observed, the differences in the figures under columns 1 and 2 would have been reduced at least 1 cent per car per mile.

Second, while it is proper for the figures covering an intra-territorial haul within the South to include the L-2 arbitraries, the assumption that there are intra-territorial hauls as long as those for which the rates are computed in the exhibit and the consequent use of such long mileages to which the K-2 scale was applied, has a tendency to deflate the importance of the L-2 arbitraries.

Third, the per car revenues on which the column 1 figures are based are divided by the total distances from the Florida origins to the Eastern destinations, which distances are very much in excess of any possible haul within the South, and naturally produce low per car per mile revenues, whereas the figures in column 2 are obtained by using the much shorter distances from origin to Richmond.

Fourth, the application of the K-2 scale to the through distance from origin to destination and on which the figures [fol. 1450] in column 1 are predicated, produce through rates which are from 1 to 3 cents less than the actually published through rates upon which the figures in column 2 are predicated. The theory of this exhibit contemplates what really amounts to deducting arbitraries of from 1 to 3 cents per hundred pounds to accrue to the Eastern lines and then dividing remainder on a straight mileage prorate. Furthermore, the theory of the exhibit contemplates the Eastern lines sharing in the L-2 arbitraries, which, of course, would be absurd under any scheme of mileage prorate divisions.

At page 570 of the record, Witness Hodkinson refers to my Exhibit No. 38, which shows the divisions of present rates for certain representative movements within the South, and makes the statement that it is interesting to note that the Southern lines, in working out divisions among themselves, accept much lower percentage proportions on oranges moving intra-territorially in the south than they appear willing to take on interterritorial movements to

Trunk Line and New England destinations. He endeavors to illustrate this by pointing to the divisions of the 68 cents per 100 pound rate from Winter Haven to Atlanta, divided to Jacksonville 24½, beyond 43½, which he says allow lines to Jacksonville 52 percent of the local rate of 47 cents and north of Jacksonville 84 percent of the local rate of 47 cents [fol. 1451] and north of Jacksonville 84 percent of the local rate of 52 cents. Apparently, the witness is under the impression that the local rates from South Florida points to Jacksonville are on basis of 40 percent of 1st class rates, but this is not true, the Florida Commission not yet having authorized the observance of this basis. The present local rates up to Jacksonville are lower than 40 percent of 1st class. But, be that as it may, the calculations made by Mr. Hodkinson and which he has put in the record confirm what I have said all along, namely, that the proportions accruing south of the Florida gateways under the former rates were lower relatively than the proportions accruing north of Jacksonville, and, likewise, to the extent that present rates are determined by use of divisions of former rates as factors, the divisions of the present rates allow relatively lower proportions south of Jacksonville than north of Jacksonville.

Mr. Hodkinson's Exhibit 130 and 131, record page 575, is a statement based on my Exhibit No. 10, which purports to show short line distances and per car per mile revenues accruing beyond Richmond, Potomac Yards and Hagerstown under the revenue prorate basis. From the summary shown on Sheet 3 of the exhibit, it appears that the average per car mile revenue of Eastern lines on the 27,053 cars moving via Richmond is 21.33 cents; on the 2,140 cars via Potomac [fol. 1452] Yards 25.58 cents, and on the 28 cars via Hagerstown 43.59 cents. These figures are in excess of those which I gave in connection with my Exhibit No. 10. It seems to me that considering the volume of this movement in connection with these per car per mile earnings the traffic is very attractive to the northern lines. Further, taking all of the facts adduced in this record into consideration, those figures do not appear to be out of line with the average per car mile earnings south of the gateways, as shown in the summary on Sheet 3 of Exhibit 131, which are, to Richmond 33.06 cents, to Potomac Yards 32.19 cents and to Hagerstown 26.36 cents. Among those facts which I have in mind,

I include as bearing upon this question of reasonable division the circumstance that in the movement of this traffic to the East the Florida lines haul it to the Eastern gateways over their own rails to a very large extent and the further circumstance, as shown in the record, that the revenue of these lines from the citrus fruit traffic is such a very important item of their total revenues.

Exhibit No. 132 was filed at page 575 and Exhibit No. 133 at page 579.

According to my Exhibit No. 9, on the 29,221 cars which moved during the 1928-29 season under the reduced rates which became effective November 9, 1928, the Eastern lines would have received under the proportions which they were [fol. 1453] accepting just prior to November 9th a total revenue of $2,251,936.60, but the Eastern lines actually retained on this movement $381,823.16 in excess of this figure. According to Mr. Hodkinson's Exhibit 132, a mileage prorate applied to this movement would result in the Eastern lines having received $667,852.00 more than they received out of the former rates; that on divisions based on first class rate prorate the Eastern lines would have received revenue of $765,678.00 in excess of what they received in dividing the former rates; and that if divided on basis of Ex Parte 96 decision for average hauls, the revenue of the Eastern lines would have been increased $951,835.00.

All I have to say with respect to these showings is that the Southern lines cannot afford to withstand the loss of $381,823 which they have already suffered because of the action of the Eastern lines. They cannot afford to suffer this enormous loss in revenue so badly needed, and they certainly cannot be expected to take shrinkages ranging from $300,000 to $600,000 per season on this movement to the east.

Mr. Hodkinson's Exhibit No. 134, page 582, undertakes to show what proportions would have accrued to Northern and Southern lines, respectively, if each factor as of August 25, 1920, had been increased the same percentages as the intraterritorial rates were increased; that is, 40 percent in the North and 25 percent in the South. It shows, [fol. 1454] for example, that to Albany, N. Y. the specific beyond Richmond as of August 26, 1920, if increased 40 percent instead of 33⅓ percent, would have become 37 cents per box instead of 35½ cents. The 35½ cents specified was,

on November 8, 1928, as shown by my Exhibit No. 21, 32 cents. Had the specific been increased 40 percent, effective August 26, 1920, it would have become 37 cents, and when reduced 10 percent, effective January 1, 1922, it would have become 33½ cents. 33½ cents per box is equivalent to 37 cents per 100 pounds. The Eastern lines have actually retained revenue on shipments to Albany on basis of 40 cents per 100 pounds beyond Richmond. To New York, if the specific beyond Richmond had been increased 40 percent effective August 26, 1920, it would have, on November 8, 1928, been 19 cents per box, equivalent to 21 cents per 100 pounds. The Northern lines in making settlement on shipments to New York moving since the rates were reduced effective November 9, 1928, retained revenue on basis of 22½ cents per 100 pounds. To Boston, had the specific beyond Richmond been increased 40 percent instead of 33⅓ percent, effective August 26, 1920, it would have, on November 8, 1928, been 28½ cents instead of 27 cents. 28½ cents per box is equivalent to 31½ cents per 100 pounds. The Eastern lines, on shipments moving to Boston since the rates were revised effective November 9, 1928, have retained revenue on basis of 41½ cents when moving via the New [fol. 1455] Haven and 42½ cents when moving via other lines.

It will be seen from this that the Eastern lines arbitrarily and by taking the matter in their own hands have, since November 9, 1928, retained revenue on basis of proportions very greatly in excess of those to which they would be entitled *to* even if it be conceded that their specific should have been increased 40 percent instead of 33⅓ percent as of August 26, 1920. I do not make any such concession; in fact, they have even retained greater proportions than they would have received had the proportions of the Southern lines been increased no more than 25 percent effective August 26, 1920.

Mr. Hodkinson's Exhibit No. 135, page 583 of the record, shows very conclusively that, even had the proportions of the Eastern lines been increased 40 percent instead of 25 percent under Ex Parte 74, or even had the Southern lines been held to only a 25 percent increase in their proportions of the through rates increased 33⅓ percent under Ex Parte 74, the additional amounts which would have accrued to the Northern lines are only a small percentage of the addi-

tional amounts over and above the published proportions which were in effect on November 8, 1928, used by the Northern lines in determining the revenue which they retained on the shipments moving since November 9, 1928. For example, on 2871 cars to Boston in 1928, the exhibit [fol. 1456] shows that the Eastern lines would have received $12,919.50 more had they received a 40 percent increase in their proportions under Ex Parte 74.

My Exhibit No. 23 shows that during the 1928-29 season 2989 cars moved to Boston, on which the Eastern lines actually retained $415,402.29. Had the agreed specifics as of November 8, 1928, been applied to these shipments, the amount which would have accrued to the Eastern lines would have been $298,236.12. In other words, on shipments moving in only one season and only to Boston, the Eastern roads retained out of the revised rates $117,256.17 more than they would have received had the rates not been revised. This is approximately ten times more than they would have received had they obtained a 40 percent increase in their specifics under Ex Parte 74 instead of a 33⅓ percent increase.

Mr. Hodkinson's Exhibit 136 was filed at page 584 of the record. While it is true that the Southern lines receive relatively lower per car mile earnings on the California citrus fruit which they handle than they receive on the Florida fruit which they originate or deliver, they do so under entirely different circumstances than do the Official Territory lines. Prior to the period of Federal Control, there was no general line of joint class and commodity rates from Trans-Continental territory into the South. On certain commodities, including citrus fruit, joint rates were [fol. 1457] maintained to important consuming and distributing centers. Such commodity rates as were maintained were, generally speaking, constructed by adding to amounts acceptable to the Trans-Continental lines 80 percent of the local rates maintained by the Southern lines from the Ohio and Mississippi River crossings to the Southeastern destinations. These rates were then divided as made. During the period of Federal Control, the Director General extended the same rate basis into the South on traffic to and from Trans-Continental territory that had long been in effect north of the Ohio River. This extension of the blanket basis was strongly opposed by the individual Southern

lines. Of course, during the period of Federal Control, the question of divisions between the lines under unified operation was a matter of little concern, but immediately upon the termination of the period of Federal Control, the matter of divisions became important and it was finally necessary for the Southern lines to appeal to the Interstate Commerce Commission, which they did in Docket 13972, the divisions now in effect having been established by the Commission as result of that complaint, the Commission's report being found in 95 I. C. C., page 385. In other words, the Southern lines had this blanket basis saddled upon them during Federal Control, when they were powerless to protect themselves. This subject was rather extensively [fol. 1458] gone into in the record in Docket 16939, the Rate Case, in which the Commission fixed rates on citrus fruits from Florida.

At page 587 of the record, Mr. Hodkinson refers to request received by one of the Eastern lines from the Southern lines during the latter part of 1928, to join in applying the through rates on citrus fruit from California to the East via the Virginia gateways, in order to permit of movement through the South. This request was made because it was found that, on the rather important movement of California fruit to Southern points such as Birmingham and Atlanta, the routing was being controlled by the Southern lines, which, upon arrival of the fruit at destination, could extend diversion or reconsignment privileges permitting the fruit to be forwarded to destinations in the East. The Southern lines operating from New Orleans to the Ohio River participated to some extent in the movement of citrus fruit from California to the East, and on shipments consigned to Birmingham or Atlanta, for example, could, upon arrival at these destinations, be diverted by such lines through the Ohio River to Eastern destinations. This privilege was found to adversely affect the Southern, the Seaboard and certain of the Coast Line System Lines in the solicitation of this traffic to Southeastern points proper, and, in order to place themselves upon a parity, they did approach the Eastern roads in an effort [fol. 1459] to work out a plan whereby they could extend these diversion and reconsignment privileges upon a parity with the lines having routes through the Ohio River. Of course, only a very small part of the traffic is reconsigned,

but the privilege controls the routing of other important movements, and the Southern lines with no other outlet but the Virginia-Maryland gateways, either had to meet the competition or see the business go to their competitors. We make no claim that, on the seven or eight cars per season which are diverted to the East, we make any money. We would be glad indeed if we could be relieved from handling any of the diverted shipments, but, as a practical matter, the shipments given diversion or reconsignment privileges amount to so little that it should not here be given any consideration. Certainly neither the Seaboard nor the Coast Line System Lines would think of soliciting or participating in through consigned shipments of citrus fruit from California to the East via their routes through Atlanta and Richmond. As to the proportions which we were required to allow beyond Richmond on this traffic, it was with us simply a case of finding a railroad in the East which would take the business at any price. As a matter of fact, only one of the railroads would participate at all, and the Southern lines had to pay dearly, in the way of excessive allowances north of the Virginia gateways for its concurrence.

[fol. 1460] As to the method of converting the Florida per box specifics to per 100 pound basis to be used in dividing the through rates from California, the published estimated weight on California fruit is, as shown in my Exhibit No. 7, only 78 pounds. In the circumstances, we could not have very well insisted upon the per package specifics being converted to per 100 pound basis, using in excess of 80 pounds per package, although we then felt and yet feel that the proportions required beyond the Virginia gateways on this traffic are too high.

That completes what I have to say at this time regarding Mr. Hodkinson's Exhibits and testimony with the exception of his Exhibit 137, page 589, which shows through per 100 pound rates from the Gulf Coast to the East, and in connection with which rates he stated that the specifics beyond the Virginia gateways are on a per 100 pound basis using 80 pounds per box. The investigation which I have just made discloses that there is no movement under these rates to the Virginia and Maryland gateways. I mean that the movement is so slight that none of the initial lines could locate any of the shipments. Furthermore, the oranges

consist of the satsumas, which are packed in two 40 pound boxes, tied together, the actual weights being 80 pounds.

Witness Oliphant, at record page 596, states that it seems apparent in dealing with divisions of rates prescribed by [fol. 1461] the Commission on citrus fruit that the divisions to Eastern Trunk Line and New England territories cannot properly be fixed separately and without regard to divisions on the same traffic to Central Freight Association territory, and that divisions to Trunk Line territory on citrus fruit as involved in Docket No. 24069 do not represent the whole picture, but only a small part of the inter-territorial adjustment on citrus fruit.

It is true that the Commission in Docket 16939 prescribed through inter-territorial rates on citrus fruit from Florida to points in Central and Illinois Freight Association territories, as well as to points in Trunk Line and New England territories, but, for that matter, in the same order the Commission prescribed inter-territorial rates on citrus fruit from Florida to every point in the United States. Our own feeling has been that there is not more reason for including divisions of rates to points in Central and Illinois Freight Association territories in the same proceeding with the divisions to the East than there is for including the divisions of the rates to Western Trunk Line, Southwestern, Inter-Mountain and Trans-Continental territories. The divisions of the rates to each of these rate territories have heretofore been fixed separately and without very much regard one to another. This record already shows conclusively that with the revision of November 9, 1928, the [fol. 1462] negotiations which the Southern lines had with the Northern lines with respect to divisions were separated as between the Eastern lines and the Central Western Lines. Furthermore, the position taken by these two sets of carriers greatly differed. While our negotiations with the Central territory lines were not satisfactory and we were forced to accept, but under protest, the basis of temporary divisions which they offered, they were much more satisfactory than our negotiations with the Eastern and New England lines.

In the first place, the Central territory lines invited us to a conference at which the representatives of the Southern lines sat down with responsible representatives of the individual Central territory lines and there was a full and

frank discussion of the matter with evidence on both sides of an earnest desire to agree upon a mutually satisfactory basis of division. Our unsuccessful efforts to obtain similar treatment at the hands of the Eastern and New England lines are fully set out in my Exhibit No. 1.

In the second place, the divisions offered by the Central territory lines, and accepted by us under protest, contemplated the acceptance by the Central territory lines of the same proportions as they had received out of the former rates, whereas the Eastern and New England lines required out of the reduced rates more than 12½ percent in excess of the proportions which they had accepted out of the [fol. 1463] former rates. Up until November 9, 1928, not only had the through rates on citrus fruit from Florida to Eastern and Central territory not been made upon the same relative basis, but they had not been divided on the same relative basis, and as I have just shown, since November 9, 1928, and up until this hearing started, the Eastern and Central Territory lines themselves have insisted upon the divisions of the new rates being upon different bases.

At the risk of repetition, I want to say that the Florida lines filed formal complaint, Docket 24069, for the principal reason that on citrus fruit from Florida to the East and New England the destination lines have, in making settlements under revised rates which represented substantial reductions, retained revenues upwards of 15 percent in excess of those which they received out of the former rates; that on citrus fruit to no other territory and on no other commodity or class on which the Commission has fixed rates under Docket 13494, or subsequently, has any set of carriers undertaken to require more revenue out of the revised rates, if reduced, than they obtained out of the former rates. Probably we would not be here complaining but for the fact that there is involved a tremendous movement of upwards of 50,000 cars per season. As I have previously pointed out the Eastern and New England lines have already retained amounts aggregating $1,200,200.00 in excess [fol. 1464] of what they would have received had the rates on citrus fruit from Florida not been changed.

Mr. Oliphant's Exhibit No. 138 was filed at page 599. I agree with Mr. Oliphant's testimony that, prior to the revision required under the Commission's decision in Docket

1168 (14 I.C.C. 476) the through rates on citrus fruit from Florida to points north of the Ohio River were made on combination of factors to and beyond the Ohio River. At that time the rate applicable from Jacksonville, from beyond, to the Ohio River crossings proper and for beyond, was 46 cents per box, subject to carload minimum of 250 boxes. In its report in Docket 1168, to which I have just referred, the Commission stated that this proportional rate of 46 cents could not be held to be unreasonable. Mr. Oliphant's testimony is to the effect that the proportional rates then in effect beyond the Ohio River were substantially the 4th class rates, but, according to the Commission's report in Docket 1168, page 495, the regular 3rd class rates were applicable. The report at page 495 reads:

"To points north of the Ohio River the rate is constructed by adding to this 46 cents a sum which seems to be ordinarily equivalent to the regular third class rate from the nearest Ohio River crossing to the point of destination. Thus the rate to Chicago is 59.6 cents, made up of 46 cents to the Ohio River plus 13.6 cents beyond. That is, the line [fol. 1465] leading from the Ohio River charges for its part of the through movement from Florida to destinations exactly the same as it would charge for the local movement from the Ohio River crossing to destination."

The Report goes on to state:

"Carriers north of the Ohio River at the present time charge the third class rate from the Ohio River crossings to destination, which, as we understand, is the same rate that would apply if the shipment originated at the Ohio River. In our opinion, something less than this should be charged by these railways, and we also think that with respect to traffic into this territory perhaps the rate from Florida itself to the Ohio River ought to be somewhat reduced."

Either Mr. Oliphant or the Commission was mistaken as to the basis applied north of the River.

I will not take up the time to here discuss in detail all of the statements made by Mr. Oliphant with respect to the weight of the citrus package, except to point out that his testimony on this point corroborates that given by me to the effect that, even before the Commission's decision in

Docket 1168, June 5, 1908, the weight of the Florida citrus package exceeded 80 pounds. The very report from which I have just been quoting, on page 481, refers to the testimony in the case and to the fact that a statement was in-
[fol. 1466] troduced which showed the actual average weight was then 90 pounds to the box as compared with the estimated weight of 80 pounds. I am referring to the report in Docket 1168, June 5, 1908.

There is nothing in Mr. Oliphant's testimony which in any way conflicts with the fact that when the Docket 1168 decision was rendered in June, 1908, Florida citrus was moving to points north of the Ohio River under through per package rates which were constructed by adding to the proportional rates of the Southern lines applicable to the Ohio River crossings the voluntarily established proportions of the lines north of the crossings. The Commission, in its decision, states that the proportions north of the Ohio River were the same as the then local rates of the Northern lines. If I correctly understand Mr. Oliphant's testimony, this statement of the Commission is contrary to his understanding, but the point is that whatever the proportions north of the Ohio River may have been, they were voluntary proportions of those lines and they were in per package units and were being applied on exactly the same package as is today moving; that is, the average weight of it was 90 pounds then, just as it is today. Anybody who had anything to do with that proceeding in Docket 1168 should have understood that the average actual weight of a box of oranges even at that time was 90 pounds because it was
[fol. 1467] so testified and the Commission's report so finds.

By the Commission's decisions in Docket 1168 (14 I. C. C. 476 and 17 I. C. C. 552) a new deal with respect to the through rates and divisions on citrus fruit from Florida to points north of the Ohio River was had. The through rates were specifically fixed by the Commission, and, as result of subsequent proceedings before the Commission, my Exhibit No. 102, the divisions were fixed by the Commission. For example, the proportional rate from Jacksonville, from beyond to Chicago was formerly 59,6 cents per box, divided to the Ohio River 46, beyond 13.6. As result of the Commission's decisions to which I have just referred, this through proportional rate was, effective April 15, 1910, reduced to 53 cents per box and divided to Ohio

River 41, beyond 12. In other words, the reduction of 6.6 cents per box from Jacksonville, from beyond, to Chicago was absorbed, 5 cents to the Ohio River and 1.6 cents beyond. These decisions on the part of the Commission definitely fixed from that date both the rates and the divisions and it also appears to have definitely disposed of the question of estimated weights.

In Mr. Oliphant's Exhibit No. 138, he reproduced letter from Chief Inspector George Merki, of the Central Freight Association Inspection & Weighing Bureau, dated Chicago, January 15, 1918, addressed to Mr. C. McD. Davis, at the [fol. 1468] time General Freight Agent of the Coast Line, in which attention was called to the fact that oranges provided for at an estimated weight of 80 pounds were found to weigh around 90 pounds. The quotations from the tariff shown in Mr. Oliphant's Exhibit No. 138 would have given the destination lines all of the authority they needed to have collected charges from consignee on basis of a prorate increase representing the additional weight of 10 pounds per box, but I seriously doubt if, in view of the fact which I have related, this could have been done, and especially so since, for a long period, the Official Classification, as testified by Mr. Oliphant (Record, Page 613) provided an estimated weight of 80 pounds per package on oranges. I find by reference to Official Classification 43, Agent Collier's I. C. C. No. 43, effective January 1, 1916, that it provided that oranges and grapefruit in boxes 27 x 14 x 13 inches in dimensions will be taken at estimated weight of 80 pounds per box. So long as the Official Classification lines published to the world that they would handle citrus in boxes of these dimensions at an estimated weight of 80 pounds, I do not see how they could have done otherwise than accept this weight, notwithstanding that they knew, and it is an uncontraverted fact, that the actual average weight of the package was then 90 pounds as it is today.

At page 645 Mr. Oliphant summarizes the position of [fol. 1469] the Northern carriers with respect to their use of the estimated weight of 80 pounds as applied to citrus fruit and states that since 1887 the Northern lines have used the estimated weight of 80 pounds per box and that the Central Freight Association carriers never knowingly agreed to transport 90 pounds of fruit upon the basis of an estimated weight of 80 pounds, and so on. The record,

of course, speaks for itself and there has been ample showing, including specific findings of the Commission itself in its report in Docket 1168, that the actual average weight of the Florida citrus fruit box was 90 pounds. The protests made to the Southern lines by the Northern lines and the correspondence relating thereto, reproduced in my Exhibit 2 and in Mr. Oliphant's Exhibit 138, clearly demonstrate that the Central Freight Association lines did knowingly transport the Florida citrus at an estimated weight of 80 pounds when at the same time they knew it weighed in excess of this estimate. It doesn't make any difference that, in some instances, their specifics or proportions were upon a per hundred pound basis, because their own Classification provided for an estimated weight of 80 pounds, regardless of the actual weight, and in practice they were doing the same thing, whether their proportions were stated per package or per hundred pounds, that is, they were carrying Florida citrus fruit at an estimated weight of 80 pounds, when it then and now actually weighs on the [fol. 1470] average of 90 pounds. The through per package rates applied jointly, and, as I have pointed out in my direct testimony in connection with the divisions of the rates to the East, there is no more reason why the former per box proportions of the Central lines should be converted using 80 pounds per box than there is that the proportions of the Southern lines be similarly converted. The former combination rates disappeared with the establishment of the through rates under Docket 1168, and the Southern lines have just as much right to insist that their proportions of the new rates be obtained by converting the proportions on an 80 pounds basis, as have the Northern lines. As I will later show, the result of the revision which became effective November 9, 1928, was to substantially reduce the through rates from Florida, to points north of the Ohio River, and, to my way of thinking, it would be wrong and altogether unfair that one set of carriers should have to bear more than their prorata share of the reduction. It would, I think, be unrighteous to expect one set of carriers to bear the entire reduction, or for the Southern lines, as is contended by the Northern lines, to bear more than the entire reduction.

Reverting to the divisions of the reduced rates established by the Interstate Commerce Commission as result

of Docket 1168, it is true, as stated by Mr. Oliphant (record [fol. 1471] page 637) that the proposition of the Southern lines was that the Northern lines should shrink their proportions 3.6 cents and the Southern lines 3 cents in taking care of the total reduction of 6.6 cents in the rate to Chicago, and that this was not acceptable to the Northern lines. It is also true that, as result of suggestion of Commissioner Prouty, it was agreed that the new rates would divide by allowing from Jacksonville to Ohio River crossings proportion of 41 cents, which resulted in the Southern lines reducing their proportion 5 cents per box but it is not true that the position then taken by Northern lines was upheld by Commissioner Prouty. The Northern lines at first contended, as they do now, that the entire amount of the reduction should be borne by the Southern lines, but when they were brought before the Commission they indicated a willingness to bear their prorata share of the reduction north of Jacksonville, which was substantially 1.6 cents of the total reduction, 6.6 cents, from Jacksonville from beyond, to Chicago. The contention in the instant case is apparently that, not only should the Northern lines not be required to stand any of the reductions which were made effective November 9, 1928, as result of Docket 16939, but that they should be allowed out of the reduced rates substantially greater proportions than they received out of the former rates.

[fol. 1472] At page 652 of the record Mr. Oliphant refers to my testimony at pages 132 and 133 relative to temporary basis of dividing the new rates on citrus fruit to Central Freight Association territory and asserts that I do not, however, state what is the fact, namely, that the present basis is a purely temporary one. My statement on page 132 of the record is that the representatives of the Central Freight Association and Illinois Freight Association lines stated that as a temporary basis they would require their former per box proportions converted to per hundred pound basis, using 90 pounds per box, and indicated that they were unwilling to consider the establishment of permanent divisions of these rates until a permanent basis of divisions of the Docket 13494 class rates shall have been arranged.

Mr. Oliphant's Exhibit 142, is filed at page 656. At page 656 he testifies that on November 1, 1902, through rates

were published by Southern lines per package, but that such through rates were nothing more nor less than the rates to the Ohio River crossings, using full local per box rates south, and proportional rates, the equivalent of 4th class or 80 percent thereof, north; that at that time the proportions north were not published on per box basis, and, for comparative purposes, under the column headed "November 1, 1902" in his Exhibit No. 142, he has converted the proportions north of Cincinnati to a per package basis of [fol. 1473] 80 pounds by taking 80 per cent of the 4th class rates in effect at that time. He contends that this exhibit supports his historical testimony with respect to the position of the Central Freight Association lines on the question of actual weights, and points out that on November 11, 1903, the Southern lines canceled their overhead rates and published through rates on basis of showing the factors separately, the factor south being 46 cents per box of 80 pounds, while the factor north was in cents per 100 pounds and represented the full 4th class rates. As I see it, this supports the position of the Southern lines, namely, that for 40 years or more the Northern lines have been hauling the Florida citrus fruit, which actually weighs on the average 90 pounds per box, at an estimated weight of 80 pounds. For example, by referring to Mr. Oliphant's Exhibit 142, it will be noted that the through rates from Jacksonville, from beyond, to Akron, Ohio, as of November 1, 1902, was 59 cents per box. In dividing, the lines up to the Ohio River received 46 cents, leaving the lines beyond 13 cents per package which, according to Mr. Oliphant, is approximately the 4th class rate at 80 pounds per box, or 16 cents per 100 pounds.

The exhibit shows that when through per package rates were again published, effective December 15, 1908, they also were on basis of applying on the Florida citrus box 4th class rate converted on basis of 80 pounds per box. [fol. 1474] As a matter of fact, this was in accord with the then current Official Classification which governed the local rates within Central Freight Association territory and which provided that they would carry oranges and grapefruit in boxes, 27 x 14 x 13 inches, at estimated weight of 80 pounds regardless of their actual weight.

Mr. Oliphant states (Record, page 657) that the figures shown in his Exhibit 142 under the column headed "Novem-

ber 8, 1928'' are the equivalents of the figures shown in column headed ''January 1, 1922,'' and represent the November 8, 1928, rates per package of 80 pounds in the column headed ''January 1, 1922'' transposed to per hundred pounds basis for comparative purposes only, using as a basis for transposition from per package to per 100 pounds 80 pounds per package. The figures shown in the exhibit under column headed ''November 8, 1928'' are upon the basis stated by Mr. Oliphant, but they are certainly not the equivalents of the January 1, 1922, rates. Take, for example, the January 1, 1922, rate from Jacksonville, from beyond, to Akron, Ohio, 79½ cents per box. This rate would produce on a car of 360 boxes a per car charge of $286.20. Under the column headed ''November 8, 1928,'' Mr. Oliphant shows the equivalent of this rate in per 100 pounds as 99½ cents, but if you apply this figure to the weight of [fol. 1475] 360 boxes, i. e., 32,400 pounds, it will produce a per car charge of $322.38, which is $36.18 more than produced by the January 1, 1922, per box rates. Similar discrepancies run all the way through the exhibit.

Incidentally, Mr. Oliphant has shown under the column headed ''November 9, 1928'' the rates from Jacksonville, proper. Of course, there is little value in comparing the rate from Jacksonville, proper, established November 9, 1928, with the proportional rates applicable from Jacksonville, from beyond, in effect prior to that date. Further, at no time has the rate from Jacksonville, proper, been of any importance.

In this exhibit Mr. Oliphant has made comparisons of the percentage relation which the proportions up to the river bear to the local commodity rate on citrus fruit with the percentage which the proportions north of the River bear to the 4th class rates. In my opinion, these comparisons mean little, if anything. In the first place, if a comparison of this sort is to be made, the percentage which the proportions south of the river bear to the 2nd class rates should be used. The mere fact that there was a movement of citrus fruit from Florida to the Ohio River crossings, proper, and consequently commodity rates were established to apply thereon, shouldn't be used to the disadvantage of the South- [fol. 1476] ern lines in dividing the through joint rates which the Commission has fixed from time to time from Florida to points north of the River. These through rates

on citrus fruit from Florida to points in Central Freight Association territory have, for more than 20 years, been fixed by the Interstate Commerce Commission. The subsequent changes in the local rates to and beyond the Ohio River have had no influence upon the through commodity rates on citrus fruit nor upon the proportions accruing to the lines north or south of the River in dividing such through rates. We have enough trouble trying to agree upon divisions of these joint through interterritorial rates as it is, but it would be a sorry day if we have to consider readjusting them every time the local rates in one of the territories change. As further indicating the non-importance of the showing which Mr. Oliphant undertakes to make by this exhibit, I call attention to the fact that, according to Mr. Oliphant's own testimony (pages 648, 649) the local rates in Central Freight Association territory were increased 5 percent and 15 percent under I. & S. Docket 965. Certainly these changes in the local rates north of the River were not reflected in the through rates on citrus fruit from Florida to Central Freight Association territory. In this connection, I refer to Mr. Oliphant's Exhibit 141, which is [fol. 1477] a chronological rate history of the through rates.

Mr. Oliphant's Exhibit No. 143, page 661, is designed to show that the proportions accruing south of Cincinnati out of the through rates on citrus fruit from Florida to Central Freight Association points represent greater percentages of what Mr. Oliphant terms the local rates to Cincinnati than the percentages which the proportions north of the river, accruing out of such through rates, represent of the fourth class rates north of Cincinnati.

Of course, the through commodity rates on citrus fruit from the Florida origins to Cincinnati are no more local rates than are the rates on citrus fruit from Florida to destinations in Central Freight Association territory. Both sets of rates are joint through rates established in compliance with the Commission's report and order in Docket 16939. As none of the lines serving the Florida citrus producing section reaches the Ohio River with its own rails, there cannot be any strictly local rates from the Florida origins to the Ohio River. If the exhibit is for the purpose of showing the relationship of the class rates to and beyond the river, then the second class rates should be used south of the river and third class north, but even this show-

ing would have little relevancy because we are here dealing with through rates which, since the Commission's decision in Docket 1168, have not been made with any relation to the separate rates to and beyond the Ohio River. Further- [fol. 1478] more, it should be borne in mind that the through rates and divisions thereof which were in effect just prior to November 9, 1928, were established by the Interstate Commerce Commission. From Orlando, Florida, to Chicago, for example, the rate in effect on November 8, 1928, was 103 cents per box, equivalent to 113.3 cents per 100 pounds. The per box rate divided to Cincinnati 84 cents, beyond 18 cents, per 100 pound equivalents of which are, to Cincinnati 93.3 cents, beyond 20 cents. The through rate in effect on that date from Orlando to Cincinnati was 86 cents per box, equivalent to 95.6 cents per 100 pounds. It follows therefore, that the proportion of 84 cents per box, of 93.3 cents per 100 pounds, which the Southern lines received to Cincinnati in dividing the through rate to Chicago was 97.7 percent of the through rate to Cincinnati of 86 cents per box or 95.6 cents per 100 pounds. The rates established from Orlando under Docket 16939 were, to Chicago 109 cents per 100 pounds, a reduction of 4.3 cents, and to Cincinnati 94 cents per 100 pounds, or a reduction of 1.6 cents. The temporary basis adopted by the Central Freight Association lines for dividing the new rate to Chicago forced the entire shrinkage upon the lines south of Cincinnati. Mr. Oliphant's Exhibit 143 shows on sheet 3 that the basis of divisions of the revised rates observed by the lines north of the river results [fol. 1479] in the lines south of the river receiving 94.7 percent of the present rate to Cincinnati proper. If any consideration whatever is given this showing, it should be borne in mind that, as I have just pointed out, on November 8, 1928, the proportion to Cincinnati out of the through rate to Chicago was 97.7 percent of the through rate from Orlando to Chicago, and that this division was fixed by the Interstate Commerce Commission. I will not burden the record with a similar showing as to all other origins and destinations covered by the exhibit, but the illustration which I have given using the rate from Orlando to Chicago is representative.

Mr. Oliphant's Exhibit No. 144, page 665, is designed to show the divisional proportions north of Cincinnati on citrus fruit from Jacksonville, from beyond, to representa-

tive points in Central Freight Association contrasted with the proportions which would result from the application of the various divisional bases that have from time to time been suggested. Any showing in this exhibit contrasting the divisions of the former rates with divisions of the present rates is of little value because while the proportional rate applicable from Jacksonville, from beyond, under the former adjustment was important, the present rate from Jacksonville, proper, is of little or no importance, and there is no such thing today as a proportional rate from Jacksonville from beyond; that is, under the Commission's [fol. 1480] decision in Docket 16939. The figures shown in line 2 of the exhibit are mathematically correct in that they show the equivalent per 80 pound box of the former per box rates, but they do not mean anything in that they do not correctly portray the situation existing as of November 9, 1928. As I have previously pointed out, the box being used on and prior to November 8, 1928, is the same box and weighs the same as the box being used at present. This box weighs on the average of 90 pounds per box, and to obtain the proper per hundred pound equivalents of the November 8, 1928, per box rates, weight of 90 pounds per box should have been used in converting the former per box rates. For example, the November 8, 1928, per box rate from Jacksonville, from beyond, to Akron, Ohio, was 79.5 cents. The exhibit shows the per hundred pounds equivalent as 99.5 cents, when, as a matter of fact, the per hundred pounds equivalent is 88.3 cents per 100 pounds. The error of the exhibit can be illustrated by taking a car of 360 boxes. The former per box rate of 79.5 cents yielded revenue of $286.20, whereas if the 99.5 cents per 100 pounds equivalent shown in the exhibit be applied to the weight of 360 boxes, 32,400 pounds, the per car revenue would be $322.38. It is obvious, therefore, that to have correctly portrayed the situation the former per box rates should have been converted using 90 pounds per box instead of 80 pounds.

[fol. 1481] In order to obtain a fair comparison of what the former per box rates would have been had they been increased to reflect the 5 percent and 15 percent advance in the proportions of the Northern lines with the rates which were established effective November 9, 1928, it will be necessary to take the through rates from the origin

points rather than from Jacksonville. The January 2, 1912, rate from Orlando to Chicago, as shown in Mr. Oliphant's Exhibit 141, was 68 cents per box, divided to the Ohio River 56 cents, beyond 12 cents. Increasing the proportion beyond the Ohio River 5 percent, the through rate would have become 68.6 cents, divided to the Ohio River 56 cents, beyond 12.6 cents. Further increasing the proportion beyond the Ohio River 15 percent, the through rate would have become 70.5 cents divided to the Ohio River 56 cents, beyond 14.5 cents. Increasing the through rate and divisions 25 percent under General Order 28 the through rate would have become 88 cents, divided to the Ohio River 70 cents, beyond 18 cents. Applying 33 1/3 percent increases under Ex Parte 74, the through rate would have become 117 cents, divided to the Ohio River 93 cents, beyond 24 cents. Reduced 10 percent, effective July 1, 1922, the through rate would have become 105 cents, divided to the Ohio River 83.5 cents, beyond 21.5 cents, as contrasted with the through rate of 102 cents, divided to the Ohio River [fol. 1482] 84 cents, beyond 18 cents, but the Commission, in Docket 16939, reduced the present rate of 102 cents per box, equivalent to 113.3 cents per 100 pounds, to 109 cents per 100 pounds, and for the good and sufficient reasons which I have already given, the through rates on citrus fruit from Florida to northern destinations were not increased to reflect the 5 percent or 15 percent advances in the northern proportions. The showing of what the rates and division would have been if the increase had been allowed is little more than the satisfying of idle curiosity.

On sheet two of the exhibit, Mr. Oliphant makes the same error in converting the per box proportions to per hundred pounds basis beyond the Ohio River as he made in converting the Jacksonville rates to which I have already referred. For example, he shows in the first line of figures on sheet two that the November 8, 1928, rate beyond Cincinnati to Akron was 18 cents. He shows that the per 100 pounds equivalent per 80 pounds box is 22.5 cents. The shipments actually weighed 90 pounds per box, and, as a consequence, the correct per hundred pounds equivalent was 20 cents instead of 22.5 cents as shown by him. Using the former proportions, on a car of 360 boxes, the revenue from Cincinnati to Akron would be $64.80. The weight is 32,400 pounds and, consequently, the per 100 pound equivalent is 20 cents.

In the fourth column on sheet two of the exhibit are [fol. 1483] shown proportions north of Cincinnati, allowing south the October 2, 1911, proportions, increased 25 percent and 25 percent and reduced 10 percent, the balance of the rate in effect November 8, 1928, north converted to per hundred pounds on basis of 80 pounds per box. The former proportions from Jacksonville, from beyond, to Cincinnati, as of October 2nd, 1911, was 41 cents out of a through proportional rate of 53 cents. If the 41 cents proportional rate be increased by the percentages shown in the exhibit, it would become after the General Order 28 increase of 25 percent 51.5 cents, and if increased only 25 percent under Ex Parte 74 it would become 64.5 cents, and when reduced 10 percent would become 58 cents, leaving out of the proportional rate of November 8, 1928, 21.5 cents beyond the Ohio River. If the 80 pounds per box basis is to be used in converting the proportions north of the Ohio River, it should likewise be used in converting the proportions south, with the result that the 58 cents proportion south would become 72.5 cents per 100 pounds. If this proportion be deducted from the actual per 100 pound equivalent of the shipments moving under the proportional rate of 79.5 cents north of Jacksonville, it will leave for the lines beyond the Ohio River 16.8 cents instead of 27 cents per 100 pounds shown by Mr. Oliphant. Of course, following the theory of his exhibit and deducting the per box proportion as of [fol. 1484] November 8, 1928, of 58 cents from Jacksonville, from beyond, to Cincinnati, from the through per box rate of 79.5 cents, leaves a proportion of 21.5 cents per box which is equivalent to 24 cents per 100 pounds, and, under any circumstances, if the exhibit is to be given any consideration, the figures shown in the fifth line, sheet two, of the exhibit, should be reworked. The 27 cents proportion to Akron, Chicago, and other points, should, in no event, be in excess of 24 cents. Likewise, the figures shown in the sixth line of page two of this exhibit should be corrected. For example, to Akron, Chicago, and other points, the former proportion of 12 cents per box is shown, whereas the correct per box figure when subjected to the percentages of increase and reduction as shown in the exhibit, would become 21.5 cents, the per 100 pound equivalent of which is 24 cents instead of 27 cents as shown.

I have completed the comments which I desire to make

at this time concerning the testimony and exhibits of Witnesses Kentfield, Oliphant and Hodkinson, in respect to both of the Eastern divisions and the C. F. A. divisions. I should add probably I may later have some further comments to make on Mr. Oliphant's exhibits when we get a little further into the C. F. A. situation.

I am prepared at this time to submit some exhibits and testimony dealing specifically with the divisions of C. F. A. [fol. 1485] territory.

When we received definite advice from the Commission in August of this year that at this hearing, the matter of divisions of the rates to Central territory on citrus fruit from Florida would also be considered, we immediately started a force of men to work with the idea of obtaining some detailed information of the movement for a representative period from Florida to Central territory as we had obtained and filed as exhibits in the Eastern Case. At this point I would like to file my Exhibit 234, which is a printed statement consisting of 43 pages and covering the movement of citrus fruit from Florida to Central Freight Association, Illinois Freight Association and Buffalo-Pittsburgh territories via the Ohio River gateways during the period November 9, 1928 to June 30, 1929, inclusive. This is the same period for which similar information was given in connection with the movement to the East. We had a force of about 18 men working day and night since we started on this exhibit. Of course, we had to first obtain copies of the billing from the several accounting departments of the initial lines; then get them in shape in which they are shown in this exhibit.

Now, as will be seen on page 36 of the Exhibit there is a recapitulation. This recapitulation shows that the exhibit covers the movement of 8,773 cars. The principal difficulty [fol. 1486] in compiling the exhibit was due to the fact that this number of cars, 8,773, moved over approximately 1200 different routes. That was an average of a little more than 7 cars per route. The supply of this exhibit was not received until the 18th, Sunday, and as a consequence I have not yet had time in which to make an analysis of this exhibit that I made of the similar exhibit, which was filed in connection with the movement to the East. I might also call attention at this time to the fact that the recapitulation on page 36 shows that the effect of the rates established

November 9, 1928, under Docket 16939, caused a reduction in the total revenues accruing to the carriers on this movement of $251,685.01.

There have been some slight changes in the rates since November 9, 1928, but those changes affect the total revenue on these cars only $903.15. In other words, the net reduction November 8, 1928, as against present rates amounts to $252,588.16. Now, the amounts retained by the Northern lines in excess of what have been retained had no change been made in the through rates is $17,575.82. Had the rates been divided on the basis of a revenue prorate, using the old rates and divisions as factors, the amounts retained by the Northern lines would have been reduced $57,706.20. Based upon this exhibit and in connection with the study that the exhibit covers, it is my desire to prepare and later [fol. 1487] submit a specific proposal as to the divisions or basis of divisions which the Southern lines are now advocating in respect to rates to C. F. A. territory. That is now being worked on. I also desire to make certain tests showing what the revenue effect of the adoption of various proposals or the various possible bases of divisions would be in the light of the results shown on this exhibit.

E. M. Dewey, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am E. M. Dewey; Wilmington, North Carolina; Superintendent of Car Service of the A. C. L., and have been since August 1, 1917. I have read the transcript of the testimony of Witness Menaugh relating to the Southern carriers' claim of per diem loss by displacement of the ventilated box cars by refrigerator cars moving under ventilation in the handling of citrus fruit. In the first place, the testimony of the Southern carriers as to the car hire loss by the displacement of the ventilated box car was not intended to convey the thought that the northern roads were responsible for the situation. It is, however, a fact that the Southern carriers' increased car hire expense as a [fol. 1488] result of the displacement has caused a net loss of revenue that is allocated directly to the handling of the citrus traffic.

I have made a study to determine what this loss in car hire revenue amounts to. I used the 1928-29 season as a representative year, and on the movement of citrus on the A. C. L. Railroad to the East via the Richmond, Savannah and Wadesboro gateways, in which there is a movement of 16,977 cars involved, 41 percent of which, or 6,961, moved under ventilation, I figure that the loss in per diem, based on an eight day turnaround north of us, is $55,688.00, and that the refrigerator mileage, based on this same number of cars, from the loading center, or average distant loading point in Florida, through these gateways empty southbound and loaded northbound, would amount to 11,114,370 miles, at two cents per mile, $222,287.40, or a total car hire loss on the traffic moving into the East of $277,975.40. This does not represent the entire car hire loss; it only represents the loss on traffic moving in refrigerator cars under ventilation into the East for this period. I have not included the balance of movement handled through other gateways, principally to central and western points.

My study confirms the testimony which Witness Dixon has previously given in this case as to loss. Mr. Dixon testified as to the per diem loss on the entire ventilated movement and gave an average figure of $30 per car to show [fol. 1489] the additional mileage payment. This condition does not operate against the northern carriers to the same extent as it does to the Southern carriers. The mileage paid by Northern carriers on the refrigerator car is just about equivalent to the per diem cost to them of a railroad owned ventilated car. Reference to displacement of plain box cars by refrigerators in movement of white potatoes and surplus Pennsylvania coal equipment lying idle and the Pennsylvania paying foreign roads per diem on their coal cars used for company fuel purchased by these roads from mines located on the Pennsylvania is certainly irrelevant. Mr. Menaugh's and Mr. Ward's testimony as to the growing trend in use of refrigerator cars displacing other classes of equipment in their territory would not in any way affect, and certainly not reduce, this loss in car hire revenue on the part of Southern carriers in the citrus movement.

The testimony of Witnesses Menaugh and Ward, of the Pennsylvania and Baltimore & Ohio, respectively, indicates that these lines are debtor balance per diem lines with the

three Southern carriers, indicating that the Southern carriers are earning a return from the source of per diem revenue on the ventilated box cars notwithstanding the fact that they have been displaced and are not used in the citrus movement. My answer to that statement is that the credit per diem balance in favor of the Southern carriers is due [fol. 1490] to the fact that the preponderance of the movement of general, including other perishable traffic as between the Southern and Northern lines is northbound, or that more box car traffic is loaded on the Southern carriers destined to these Northern lines than is loaded on the Pennsylvania and B. & O. destined to the Southern lines, the road originating the traffic using its system cars for the loading. We have, and have had, a sufficient number of ventilated box cars to have protected the citrus movement and in addition to that the other box car loading to which part of this per diem credit is attributable. In other words, our per diem receipts for the period under consideration would have been approximately $55,688.00 more than it was with Eastern roads had the ventilated cars been used for the citrus movement.

Had the ventilated cars not been displaced by refrigerators the Atlantic Coast Line would have had available a sufficient number of cars to have protected the citrus movement, and that the per diem balance actually earned by these cars would not have been reduced. There were sufficient cars to have protected both movements. I determined this by taking the maximum month's loading, obtaining the daily average, and applying a turnaround in number of days that would be representative of a car from the loading point in Florida back to that point. The average loading for April, 1929, the heaviest month in the [fol. 1491] 1928-29 season, was 226 cars per day. Allowing a 15 day turnaround per car, I figure that it would require 3,390 cars, which includes both the movements under refrigeration and ventilation. Allowing 41 percent for the number moving under ventilation, I figure that we would have had demand for 1,390 additional vents.

As of October 1, 1931, Atlantic Coast Line owned 16,771 ventilated box cars, of which 16,435, 98 percent, were steel underframe, and 336, or only 2 percent, of wooden construction. Out of the 16,435 steel underframe cars the Atlantic Coast Line would have been in position to have

protected the citrus under ventilation that moved in refrigerator cars and also have protected the other loading without any trouble.

Witness Menaugh at the top of page 823 of the transcript, states that in claiming a loss for the mileage paid for refrigerator cars the Southern carriers have undoubtedly offset this mileage cost by relief from maintaining the same or a greater number of their own cars for service. My answer to that statement is that the mileage cost of refrigerator cars used in handling this traffic cannot be considered as an offset to the maintenance cost of the ventilated box cars. The ventilated box car is maintained as our box car equipment for the protection of the movement of perishables and general box car traffic; in other [fol. 1492] words, the fact that the use of these cars has been supplanted by refrigerator cars has not reduced our maintenance cost.

As of October 1, 1931, we owned 16,771 box cars, of which 16,435, 98 percent were of steel underframe construction, and 336, or only 2 percent, of wooden construction. There were in bad order on this date, 197, 58.6 percent of the wooden cars, and 762 or 4.6 percent of the steel underframe cars. This clearly shows that there is no deferred maintenance insofar as the steel underframe equipment is concerned. The wooden cars are fast becoming extinct; there are only 139 in our ownership left after deducting the cars in bad order; and these are not now used in interroad service except in rare cases.

At page 821 of the transcript, Witness Menaugh makes a deduction from Atlantic Coast Line Exhibit 64 to the effect that the 10,944 ventilated box cars loaded in the season 1909-10 were of wooden construction, and based on the average life of such cars that it is fair to assume that they have outlived their depreciated life. The testimony of the Pennsylvania witness, based on the assumption that the 10,000 odd cars were of wooden construction, is erroneous. In December 1909 our ownership as between wooden and steel underframe cars was as follows: Wooden—No. Cars 8,449, Percent 54.1; Steel Underframe—No. Cars 7,176, Percent 45.9; and of the steel underframe vents in serv- [fol. 1493] ice at that time, 6,803 are in service at present, while of the 8,449 vents of wooden construction in service in the 1909-10 season there are only in service at the pres-

ent time 336,197 of which are in bad order. This clearly shows that all of the traffic in ventilated box cars during this season, 1909-10 was not in cars of wooden construction, but insofar as Atlantic Coast Line traffic is concerned, with an ownership of 45.9 percent steel underframe cars, these cars naturally being given preferential loading over wooden cars, it is fair to assume that well over 50 percent of the 10,944 carloads of citrus moving in ventilated box cars was handled in cars of steel construction.

Cross-examination

By Mr. Eshelman:

I am speaking for the Atlantic Coast Line. There has been a constant increase in the use of refrigerator cars for the transportation of Florida citrus. It is not a new thing. The Atlantic Coast Line has not provided ventilator cars in excess of its requirements for normal times. I say that taking into consideration the fact that there has been this swinging in the case of citrus requirements from ventilated to refrigerator equipment.

[fol. 1494] H. M. KENDALL, having been previously sworn, was recalled and further testified as follows:

Examined by Mr. Gwathmey:

Mr. Menaugh has questioned the mileage prorate as a proper basis for apportioning between the various lines the necessary 24 hours which became essential to effect one day's earlier delivery of perishable traffic at New York and other corresponding points in the East. It is not our contention that such a basis is the only one to be considered; at the same time, in making a radical improvement in any joint through service, the mileage prorate should properly be taken into consideration. We do not admit that the Northern carriers are confronted with all of the operating difficulties—the Southern lines also have conditions which are burdensome—and we feel that a mileage prorate basis should be one of the principal elements considered in making a readjustment in a through service of this kind.

I wish particularly to question Mr. Menaugh's statement as to the absorption of six hours in the market schedule, in addition to the running time of three hours and forty-five minutes, the latter figure being the time which the Northern carriers assumed of the 24 hour service. While Mr. Menaugh probably did not intend to do so, we are of the opinion that this statement is misleading and has no real bearing in making a comparison of the two through perishable [fol. 1495] freight schedules referred to in my previous testimony. A number of years ago, it was a fact, based on advice from the Pennsylvania Railroad, that 3 A. M. was the fixed closing hour for the delivery of strawberries and certain other vegetable traffic for auction at the New York Piers. Based on direct information from the Pennsylvania Railroad transportation officials, the auction market on strawberries at Jersey City during the 1928-1929 season began at 11 P. M., or 10 P. M., Daylight Saving Time. The pier sales started at 1 A. M., or 12 [illegible] A. M., Daylight Saving Time. The schedule in effect at that time provided for arrival at Harsimus Cove at 6:45 P. M. It is our further advice that no material change has been made in recent years covering the auction hour sale on citrus fruits. In making a comparison of the time assumed by the Southern carriers in the through perishable schedule, the comparison was made with the service in effect during the 1928-1929 season as against the 1930-1931 season, and as evidence of our statement that the 10 P. M. Auction market was in effect during the old so-called "5 day schedule" to New York, am quoting below excerpt from letter dated December 23rd, 1929, from Mr. J. R. Downes, Chief of Freight Transportation, Pennsylvania Railroad, to Mr. S. A. Stockard, then Director of Transportation, Atlantic Coast Line Railroad Company, reading as follows:

[fol. 1496] "We can set up a connection leaving Potomac Yard at 8:00 A. M., which would arrive at Harsimus Cove, Jersey City, at 9:00 P. M. The sale of strawberries on the Jersey City side starts at 11:00 P. M., although with daylight saving, this is 10:00 P. M. The Pier sales start at 1:00 A. M., and with daylight saving, this is set up to 12:01 A. M.

"I do not think it would be practicable to include vegetables on such a schedule, inasmuch as the classification

work required would hardly permit the vegetables to be placed on time arriving at Harsimus Cove at 9 P. M.

"You will recall that we discussed the schedules via Potomac Yard at a meeting in Washington sometime ago, at which I offered a schedule by which we could get all perishable freight to the New York piers in time for the market. This schedule provided that we would leave Potomac Yard three hours and fifteen minutes later than the present schedule and make the same pier deliveries in New York."

During the spring of 1930, several conferences were held with the Pennsylvania Railroad people in an effort to work out some plan whereby perishable traffic could be dispatched from Potomac Yard several hours later. Right here, I would like to quote excerpt from another letter under date of May 2, 1930, from Mr. Downes to Mr. F. W. Brown, Director of Transportation of this company, reading as follows:

[fol. 1497] "Wish to advise that your understanding of the basis of service for the handling of all perishables from Potomac Yard to Jersey City (Harsimus Cove) N. J., as outlined by me at the conference in Washington last October, is correct; namely, that we are prepared to operate a train to leave Potomac Yard 6:45 A. M. and to arrive Harsimus Cove at 6:45 P. M. same day, thus meeting market requirements at New York for all perishable commodities on the basis of 1st morning from Potomac Yard."

On July 15th, a general conference was held in Washington, D. C., called by Mr. Downes and attended by representatives of all of the Southern lines. At that time, Mr. Downes stated that the best the Pennsylvania Railroad could do would be a departure from Potomac Yard at 6:45 A. M. with arrival Jersey City 6:45 P. M., perishable freight from all connections to be placed at the New York piers not later than 9 P. M. Eastern Standard Time, 10 P. M. Daylight Saving Time, we having been advised of a further change in the auction market hours for certain perishable traffic.

The Northern lines have always demanded a four-hour terminal allowance at Potomac Yard, and on the basis of these figures, this meant that the Southern carriers would be required to put all perishable traffic into Potomac Yard not

later than 2:45 A. M., third morning after loading, this being 20 hours and 45 minutes earlier than the schedule in [fol. 1498] effect during the previous two seasons. The scheduled arrival at Potomac Yard during the old period was 11:30 P. M., with a departure for the East at 3:30 A. M., as against a proposed departure at 6:45 A. M. under the new arranged service. The Southern lines strenuously objected to the proposed schedule, feeling that the 24 hour period had not been properly apportioned, and upon the importunities of Mr. J. C. Wroton, General Superintendent Transportation, Seaboard Air Line Railway, Mr. Downes, under date of July 23rd, 1930, notified the Southern carriers that after reconsideration, he would schedule his western train to leave Potomac Yard at 7:15 A. M. and his Eastern train at 7:45 A. M., with arrival Jersey City 7:30 P. M. This necessitated an arrival at Potomac Yard not later than 3:15 A. M. in order to make the Western connections, as well as the Eastern train connections, a difference of thirty minutes being further granted to the Southern lines. On this basis, the Southern lines actually assumed 20 hours and 15 minutes of the 24 hour period, leaving to the Northern lines 3 hours and 45 minutes, as stated in my previous testimony.

Regardless of any condition, actual or imaginary, the Southern lines were faced with a set closing hour of 3:15 A. M. for arrival of all perishable traffic to Potomac Yard. Therefore, it became necessary to actually take out of the 24 hour schedule a period of 20 hours and 15 minutes, and to [fol. 1499] accomplish this requirement, it became necessary for the Southern lines to take extraordinary measures to insure an arrival at Potomac Yard not later than 3:15 A. M. in order to meet the final fixed closing time specified by the Northern carriers.

Cross-examination.

By Mr. Eshelman:

The present schedule started with loading on September 29, 1930. My reference to the letter of December 23, 1929, was to indicate what the Pennsylvania said it could do. You understand we had numerous conferences. Mr. Downes generally called those conferences. They were attended by the Southern lines and he indicated just what the Pennsyl-

vania would be able to do. Later he went so far as to say that they would be able to leave at 8 o'clock in the morning. The previous schedule was established going back to 1925. When I referred to a number of years back, I did not specify any particular period.

This correspondence that I referred to was simply a part of the negotiations that led up to the establishment of the present schedule and, furthermore, the old schedule had been in effect for a number of years, shortly after the pre-war schedule. It was the direct result of a change of sched-
[fol. 1500] ule after the pre-war schedule, at which time we tried a four day schedule which did not work out.

The market hour begins at ten o'clock standard time except that in the summer time it would be nine o'clock standard or ten o'clock daylight, based upon information from the Pennsylvania Railroad people. We are absolutely guided by information of the Pennsylvania. We do not know what the market hour is and accept our advice from them. That only applies on strawberries and a few vegetables. It does not apply on citrus fruit and the bulk of the fruit from Florida is citrus. The strawberries go into the earliest market. Generally the perishables go into the market in the order of their perishability, but if there happen to be strawberries, then the train must be there at that time. The reason for that is that we handle strawberries right along with the perishables. That is one of the difficulties in setting those schedules. We had to get all of the perishables into Potomac Yard to take care of the strawberries as long as any other perishables may be in there. That is where the difficulty came in.

[fol. 1501] W. L. Dixson, having been previously sworn, was recalled and further testified as follows:

Examined by Mr. Gwathmey:

I have testified before. On page 883 of the record Mr. Menaugh called attention to the loading of citrus fruit in the "Southern District", stating the average tons per car in the year 1920 was 14.30 and in 1930 was 16.58. He further stated that the use of refrigerator cars for the handling of this traffic contributed to the heavier average load-

ing per car. That is incorrect. There has been no increase in the average number of boxes per car. Our records for the 1920-21 season show the average boxes per car was 368 and in the 1930-31 season the same average loading was obtained. As a matter of fact, there has been but little difference from year to year in the number of boxes per car since the 1920-21 season. The Interstate Commerce Commission in its decision in Docket 16939 found that the average loading of citrus fruit per car on the Atlantic Coast Line was as follows: Season 1920-21, 368 boxes; 1921-22, 362 boxes; 1922-23, 366 boxes; 1923-24, 357 boxes; 1924-25, 361 boxes.

The cubical capacity of our ventilated box cars is greater than that of the type of refrigerator cars used in handling this traffic. Therefore, if shippers desired to use our ventilated box cars, they could load considerably more fruit [fol. 1502] in a car of this type than they could in a refrigerator car. It might be thought that by using refrigerator cars and handling the fruit under refrigeration, heavier loading would be accomplished, but the facts do not bear out this conclusion. The cars moving under refrigeration are loaded no heavier than those moving under ventilation.

Notwithstanding that nearly all citrus fruit moved in recent years has been loaded in refrigerator cars, a large portion moves under ventilation. To more clearly illustrate this situation, during the 1930-31 season, 41,370 refrigerator cars were loaded with citrus fruits at stations on the Atlantic Coast Line in Florida. Of this number, 26,036 were moving under ventilation, representing 70 percent of the total loading in refrigerator cars. Crates of the same size and type used in 1920 for citrus fruit shipments were also used in 1930, and the same packing methods were followed in both years.

Prior to November 9, 1928, citrus fruit was billed at so much per box but in reporting the tonnage the auditor for convenience, used 80 pounds per box. The Interstate Commerce Commission in its decision in Docket 16939 directed that 90 pounds be used and since that date citrus fruit has been billed at 90 pounds per box.

Mr. Menaugh apparently did not take into consideration [fol. 1503] the change in the billed weight of citrus fruit prior to November 9, 1928 and the period subsequent thereto. In other words, the increase in loading that Mr. Men-

augh referred to had reference to nothing more than a compliation based on the use of 80 pounds per box as showing the total tonnage carried. If he had selected any year prior to the year in which the new rates went into effect he would not have found any increase in loading at all even on that basis. As soon as the increased rates went into effect and he used 90 pounds to the box, the increase in loading became apparent, whereas, there has been no increase in loading in recent years.

I. R. WHITE, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am Superintendent of Transportation with the Georgia and Florida Railroad. I have had approximately 23 years experience in transportation matters with the Illinois Central Railroad, the Southern Railway System, the Southern Railway Short Lines and the Georgia & Florida Railroad. I am familiar with the movement of citrus fruits and perishable shipments generally, originating at Florida points [fol. 1504] routed via our line to Central Freight Association territory destinations and am conversant with the various transportation features involved.

Our road handles approximately 1,000 cars of citrus fruit a season. I have prepared a map of my road showing the route over which the traffic in question moves and I wish to offer it as my Exhibit No. 235.

(Thereupon the paper referred to was received in evidence, marked Exhibit No. 235, Witness White).

My Exhibit No. 235 consists of two pages and is a map outlining the route of the Georgia & Florida Railroad on perishable traffic from Florida points.

The first page of this exhibit shows routes via Atlantic Coast Line Railroad to Willacoochee, Georgia, Georgia & Florida Railroad to Augusta, Georgia, Georgia Railroad to Atlanta, Georgia, and connections beyond, and via Atlantic Coast Line Railroad to Willacoochee, Georgia, Georgia & Florida Railroad to Augusta, Georgia, Charleston & Western Carolina Railway to Spartanburg, South Carolina,

Clinchfield Railroad and connections beyond. The second page of this exhibit shows the route from Seaboard Air Line Railway Florida stations, via Seaboard Air Line Railway to Vidalia, Georgia, Georgia and Florida Railroad to Greenwood, South Carolina, P. & N. Railway to Spartanburg, South Carolina, Carolina, Clinchfield & Ohio Railroad and [fol. 1505] connections beyond.

I have here another exhibit, No. 236.

(Thereupon the document referred to was received in evidence, marked Exhibit No. 236, Witness White).

Exhibit No. 236 shows the interchange facilities with our connections at various junction points where we receive movement of perishable traffic from Florida territory. Page No. 1 of this exhibit is a map outlining the interchange facilities with the Atlantic Coast Line Railroad at Willacoochee. The second page of this exhibit is a map outlining the interchange facilities with the Seaboard Air Line Railway at Vidalia, Georgia. The third page of this exhibit is a map showing how this perishable traffic is delivered to the Charleston & Western Carolina Railway and the Georgia Railroad at Augusta, Georgia. We do not move this business over our line in ordinary dead freight trains, because the traffic is perishable and requires a fast movement in order to reach destinations within a reasonable time. The traffic is handled on pre-arranged schedules.

By "expedited" or "arranged service," we mean that we have provided prompt movement from the junction points after receipt of the traffic, a fast road movement, and immediate delivery to the connecting lines at our northern junctions. The operation of these "expedited" or "arranged service" trains is necessary in order that cars of [fol. 1506] citrus fruits and other perishables may reach their destination for a given market delivery, which would not be possible when handled in regular freight train movement.

During the 1930-31 season we had a fixed schedule for the movement of citrus fruits and other perishables. Perishables received from the Atlantic Coast Line Railroad at Willacoochee about 8:20 P. M. are forwarded 8:45 P. M. and arrive Augusta 3:30 A. M. Perishables received from the Seaboard Air Line Railway at Vidalia around 11 P. M. were forwarded on the citrus fruit special 11:45 P. M. and

arrived Augusta 3:50 A. M., Greenwood 7:45 A. M. The 1930-31 season schedule was 23.1 percent faster than the 1927-28 season schedule. The average train speed for the 1930-31 season was 27.3 miles per hour. The average train speed for the 1927-28 season was 23.1 miles per hour. We are obligated to protect the movement of citrus fruits and other perishables on the basic schedules referred to, regardless of the number of cars that may be offered for a given day's movement. In order to maintain our perishable schedule we have found it necessary to make a reduction in train load as compared with tonnage handled in our slow freight trains. The tonnage has been reduced 25 percent. Due to curtailment of the train load of our perishable trains, we have to operate additional trains during the perishable season, averaging three trains northbound and three south-
[fol. 1507] bound per week. This is equivalent to 954 train miles. On days when the perishable traffic offered for movement was less than a train load, frequently it is not possible to secure other suitable traffic in order to fill out to a full load our perishable trains and the trains are run light to protect the through schedules. No extra expense is involved other than that mentioned in my last reply.

In the operation of trains handling citrus fruits and other perishables, it is the practice on our line to give these trains preferred attention. The trains are given right-of-way and opposing trains are made to take siding. In meeting trains, the dispatcher always gives the citrus fruit special the advantage. Those parts of our line over which perishable trains operate are single track. Those perishable trains come in contact with other freight trains but with no passenger trains under our present schedules.

The Willacoochee junction is situated eighteen miles south of Douglas, Georgia, an intermediate terminal point. We must have engine and crew at Willacoochee on arrival of connecting line's trains. To save time we frequently send engine and crew light, Douglas to Willacoochee, to get the connection from the freight train operating from the south into Willacoochee and to move the citrus fruit. The citrus fruit train stops at Douglas for orders, water and to fill out to required tonnage if sufficient fast speed cars are avail-
[fol. 1508] able. The train picks up again at Vidalia and occasionally at Midville. Stops must be made for railroad crossings at grade at Douglas, Hazelburst, Vidalia, Wesley,

Swainsboro, Midville and St. Clair; also at the Altamana River drawbridge. The train must be preceeded by flagman walking with lantern over Ward Street at Douglas, Georgia. Speed must also be reduced to fifteen miles per hour through the towns of Uvalda and Blythe, and twelve miles per hour through Summertown. In the terminal handling of this perishable business we give it preference over other freight movements. This is necessary to do in order to make delivery to the connecting lines for forwarding on their citrus fruit special trains. Switch engines in terminals are awaiting arrival of the train to make deliveries as quickly as possible.

In making up trains for line movement, the cars of perishables are separated from car- containing other freight and segregated into a pre-determined manner in order to get the cars routing to the different connections together in order to expedite delivery at the northern junctions. It is necessary to work additional switch engines, clerical and supervisory forces, etc., in the handling of perishables. One additional switch engine is necessary at Augusta, Georgia, in order to make simultaneous deliveries to two connections. Dead freight would go to connections in regular morning deliveries. No additional clerical and super- [fol. 1509] visory forces are necessary in our handling of perishables. I mean, that in the handling of the dead freight, they are different services, not involved in the citrus fruit service. The receipt of this traffic at Willacoochee and Vidalia does not present many difficulties other than classification of the traffic according to routes. The agent at Willacoochee assists telegraph operator and train crews in making passing reports and the fruit report to Chief Dispatcher's office. At Augusta, two switch engines are required to make simultaneous delivery to our two connections. The switching crews assist in making records of ice in bunkers, seals, etc., and extra yard clerks are not required. Yard to yard delivery is made in the Augusta terminal.

The night car inspector at Douglas, Georgia, frequently accompanies engine and crew to Willacoochee, inspecting cars when received from connecting line. If defects are noted but cars safe to run, he telegraphs superintendent motive power, Douglas, and additional car inspectors are called on duty to meet train and make repairs if nature of

defects are such as to permit prompt repairs. This involves no extra expense except when necessary to make repairs at Douglas. At Augusta, Georgia, regular car inspectors meet trains at South Augusta. Refrigerator cars are generally used for movement of this traffic for which a payment is made of 2 cents per mile, loaded and empty.
[fol. 1510] The Georgia & Florida Railroad is in the hands of a receiver and has been in receivership since 1915, with the exception of approximately two years and eight months. The volume of business we handle is very light and that fact tends to increase the expenses we have in arranging for this perishable movement.

Cross-examination.

By Mr. Eshelman:

The miles per hour on my schedule was figured on the basis of the road time from Willacoochee to the Southern terminal and the arriving from Augusta at the Northern terminal. That is the running time.

G. K. Williams, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am Superintendent of Transportation of the Georgia Railroad. I have been connected with the executive and operating department of the Georgia Railroad for some 23 years. Prior to that I was for several years with what is now the Gulf, Mobile & Northern.

The Georgia Railroad participates in the handling of [fol. 1511] citrus fruits when originating in that territory and destined to territory north of the Ohio River. I would say we handle roughly around 3,000 cars annually although I have not figured it.

Total mileage operated by the Georgia Railroad, including main line and branches is 329 miles. Its main stem, a single track main line extends from Augusta, Georgia, on the east, to Atlanta, Georgia, on the west; distance between being 171 miles.

Connections at its eastern terminus, Augusta, Georgia,

are with the Atlantic Coast Line Railroad, Charleston & Western Carolina Railway, Central of Georgia Railways, Georgia & Florida Railway, and Southern Railway.

And at its western terminus, Atlanta, with the Atlanta, Birmingham & Coast Railroad, Atlanta & West Point Railroad, Central of Georgia Railway, Louisville & Nashville Railroad, Nashville, Chattanooga & St. Louis Railway, Seaboard Air Line Railway and Southern Railway.

An intermediate connection is made at Camak, Georgia, located 129 miles east of Atlanta, with the Savannah & Atlanta Railway.

The main line of the Georgia Railroad is an intermediate, or bridge line, on the through routes used in the transportation of Florida citrus fruits and other perishables to market points in the territories involved in this hearing. [fol. 1512] The routing of citrus fruit, and other perishables, in which the Georgia Railroad participates is as follows:

(a) Via Atlantic Coast Line Railroad to Willacoochee, Georgia, Georgia & Florida Railroad to Augusta, Georgia, Georgia Railroad to Atlanta, Georgia, and Louisville & Nashville, Nashville, Chattanooga & St. Louis Railroad or Southern Railway beyond.

(b) Via Atlantic Coast Line Railroad to Savannah, Georgia, Savannah & Atlanta Railway to Camak, Georgia, Georgia Railroad to Atlanta, Georgia, and Louisville & Nashville, Nashville, Chattanooga & St. Louis or Southern railroads beyond.

(c) Via Atlantic Coast Line Railroad to Yemassee, South Carolina, Charleston & Western Carolina Railway to Augusta, Georgia, Georgia Railroad to Atlanta, Georgia, and Louisville & Nashville, Nashville, Chattanooga & St. Louis, or Southern Railroads beyond.

(d) Via Seaboard Air Line Railway to Savannah, Georgia, Savannah & Atlanta Railway to Camak, Georgia, Georgia Railroad to Atlanta, Georgia, and Louisville & Nashville, Nashville, Chattanooga & St. Louis or Southern railroads beyond.

Georgia Railroad participates in the movement of the Florida citrus, and other perishable traffic when destined to intermediate points on its line between Augusta and At-

[fol. 1513] lanta, Georgia, when destined to Atlanta proper, and when destined to points north and west of Atlanta, including movements through the Atlanta gateway to market points in the territory included in this hearing.

This traffic is received by the Georgia Railroad at its eastern terminus, Augusta, Georgia, from two connections, being the Charleston & Western Carolina Railway and the Georgia & Florida Railroad, and from the connection at Camak, Georgia, being the Savannah & Atlanta Railway. It is transported 171 miles from Augusta and 124 miles from Camak, Georgia, to Atlanta, Georgia.

Here we will submit as an exhibit a map showing the routes, and junctions, via which this traffic moves in connection with the Georgia Railroad.

Mr. Gwathmey: We offer that, Mr. Examiner.

(Thereupon the document referred to was received in evidence, marked Exhibit No. 237, Witness Williams.)

Witness: For proper protection of this traffic the Georgia Railroad operates an arranged service, i. e., a special schedule, inaugurated and operated for the express purpose of performing the expedited service exacted of the lines participating in the handling of these goods. The Georgia Railroad schedule known locally as the "Citrus Special," is carded to leave Augusta at 4:30 A. M., Camak, Georgia, at 6:15 A. M., and to arrive Atlanta at 11:00 A. M., making [fol. 1514] the run of 47 miles from Augusta to Camak, where it stops to switch and pick up cars from Savannah & Atlanta connection, and thence 124 miles to Atlanta, a total of 171 miles, in six hours and thirty minutes. This operation being over a single track line with broken grades, many curves, and over four (4) bridges and trestles where the speed is restricted to 15 miles per hour, it is necessary, in order for the schedule to be accomplished, that it be restricted as to the character of equipment run and the loading thereof; also must be given preferred attention in getting over the road, even to the extent of making all other freight trains and opposing passenger trains secondary thereto, all of which adds to the cost of operation.

The specially arranged schedule, for movement over the Georgia Railroad, is predicated upon similarly arranged schedules of its connections at Augusta and Camak, where the traffic is received by it, and at Atlanta where the traffic

is delivered to its northern and western connections for continued through movement. The Georgia Railroad is an intermediate or bridge line for this traffic moving into C. F. A. territory, and its time for handling is restricted according to the necessities of the connections at either end in scheduling for given markets.

The Georgia Railroad's principal connections at Atlanta for this traffic are the Louisville & Nashville Railroad, the [fol. 1515] Nashville, Chattanooga & St. Louis Railway and the Southern Railway, whose schedules are arranged to depart from Atlanta at 11:59 A. M., 1 P. M., and 1:05 respectively.

It will be observed that the total time allocated to the Georgia Railroad for the handling of this traffic, from its forwarding by special schedule from Augusta and Camak, to departure of the connection schedules at Atlanta, is as follows: (a) When routed via Louisville & Nashville to Atlanta, 7 hours, 29 minutes; (b) When routed via Nashville, Chattanooga & St. Louis or Southern from Atlanta, 8 hours, 30 minutes.

This means that the Georgia Railroad has at its disposal a maximum of only 8 hours and 30 minutes from the time of its scheduled departure from Augusta, in which to run the traffic 171 miles to Atlanta, switch it out of the train in its Atlanta terminal, place it, when necessary, to icing station for refrigeration service, classify it in switching for delivery to three separate connections and to perform the transfer service from its terminals to the connecting lines terminals sufficiently in advance of scheduled departure of the connection's trains to permit of its being switched by them into their trains.

In order to perform the fast service required of it, the Georgia Railroad must hold the necessary switch engines and yard forces at its initial terminal in Augusta ready to [fol. 1516] immediately switch cars into train there, inspect them, check the refrigeration and make the various records and entries incident to movement of this class of traffic; and must maintain facilities at Atlanta, its final terminal, including switch engines, and yard inspection and clerical forces to give it preferred and immediate attention, to the exclusion of all other work, for (a) Break-up and classification of the train for delivery to three connections; (b) Inspection and placement to ice platforms for necessary re-

frigeration service, and (c) For immediate and expedited transfer to connections for through movement.

All of which adds to the cost of handling this highly specialized traffic.

Here we wish to submit, as an exhibit, a map showing the location of the various railroad terminals in Atlanta, including terminals of the Georgia Railroad and the three connecting lines at Atlanta to which it delivers this traffic, viz: The Louisville & Nashville, the Nashville, Chattanooga & St. Louis Railway and the Southern Railway.

Mr. Gwathmey: We ask that this map be received in evidence and marked.

(Thereupon the map referred to was received in evidence, marked Exhibit No. 238, Witness Williams.)

Witness: It will be observed from this map that in the case of deliveries to the Nashville, Chattanooga & St. Louis [fol. 1517] Railway the Georgia Railroad must move its switch engine, with the cars to be delivered, over a distance of approximately six miles, practically the entire distance being through congested district and over many grade crossings in the heart of the city, and in the case of deliveries to the Southern, they must be made in time to permit of that line transferring the cars approximately 9½ miles around a belt line to its train yard, this movement by the Southern also being through congested territory and over numerous grade crossings at restricted speed.

Deliveries to the Louisville & Nashville Railroad are within a comparatively short distance, the Louisville & Nashville and Georgia Railroad operating in a jointly used terminal at Atlanta. However, it will be observed from what has been said heretofore with respect to scheduled departure of connecting trains at Atlanta, that the time between arrival of the Georgia Railroad schedule and departure of the Louisville & Nashville schedule is comparatively short.

The demand for an expedited service on this particular traffic, from production to market, is such that it cannot be held back at any point on the route for consolidation with other goods, i. e., its movement must be continuous and without delay. The Georgia Railroad is an intermediate carrier on the route and, unfortunately, its other westbound traffic, which consists principally of other high class mer-

[fol. 1518] chandise and commodities, is received at such hours as make prohibitive its consolidation with the perishable; therefore, the perishable schedule must be operated for the specific purpose of handling the perishable traffic and regardless of the number of cars offered for movement. We are obligated, by publication of the schedule, to protect movement of the perishable on the schedule referred to, regardless of the number of cars that may be offered for a given day's movement. This makes the movement more costly.

Comparison of the schedules for handling this traffic via Georgia Railroad in seasons 1927-1928 and 1930-1931, is as follows:

	1927-28.	1930-31.
Leave Augusta, Georgia	7:50 A.M.	4:30 A.M.
Leave Camak, Georgia	9:30 A.M.	6:15 A.M.
Arrive Atlanta	4:00 P.M.	11:00 A.M.
Total time	8′ 10″	6′ 30″

That means that under our new schedule we are allowed six hours and thirty minutes, whereas formerly we had eight hours and ten minutes.

During the season 1927-28 the schedule requirements for this citrus and perishable traffic were not as exacting as in the season 1930-31 and the current season just starting. During the 1927-28 season deliveries at market points in C. F. A. territory were being made on fifth morning from date [fol. 1519] loading at production points. The 1930-31 and current seasons deliveries are based on fourth morning delivery at market points.

On basis of the fifth morning deliveries in 1927-28 the traffic came to the Georgia Railroad at its eastern terminus at such hours as made possible its consolidation, to a large extent, with other traffic for movement in regular fast freight schedules, with the shortening of time by approximately 24 hours, between production and market, the traffic is now coming to us at our receiving terminals at such hours as prohibit its being so consolidated. As a result, the loading of the "Citrus Special," as compared with loading on other through schedules operating between Augusta and Atlanta, shows the "Citrus Special" as averaging approximately 541 tons lighter than average on other trains operated.

This citrus fruit and perishable traffic being subject to diversion en route, and Atlanta being one of the diversion points the Georgia Railroad has the additional burden upon it of being prepared to make such diversions promptly and on short notice. The handling of diversions is costly and makes necessary additional service, including additional switching to reclassify on diversion from the route for which shipment is lined up; and additional clerical effort and expense, etc.

[fol. 1520] It is fair to conclude from what I have said that the cost of the handling of this traffic by our railroad during the past shipping season, and as it will be during the coming shipping season, is considerably in excess of what it has been in previous seasons, because in the previous seasons with the traffic coming to us at a different hour, it was possible for us to consolidate that traffic with other traffic; the trains were running lighter, and, in addition, we have less running time allotted to us.

R. G. Parks, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am Superintendent of Car Service with the Atlanta, Birmingham & Coast Railroad Company. My experience has been 25 years in the local freight agency, agent-telegrapher, inspector of agencies; also in freight traffic, transportation and operating departments.

I am familiar with the movement of citrus fruit and other perishables originating at Florida points routed in connection with our line to Central Freight Association territory destinations. There are approximately fifty to seventy-five thousand cars of citrus fruit each year. I [fol. 1521] would say the Central Freight Association traffic would be about 60 per cent of the total. We think our line is rather an important factor in the handling of this business.

I did not prepare a map, and I want to describe the handling of this traffic. We received the perishables from the Atlantic Coast Line, at Waycross, Georgia, which is 279 miles southeast of Atlanta, 396 miles southeast of Birming-

ham, Alabama, also from the Seaboard Air-Line Railroad at Thalmann, Georgia; 311 miles from Atlanta, and 431 miles southeast from Birmingham.

We also receive some cars from Georgia, Southern & Florida Railroad, at Cordele, which is 170 miles south of Atlanta and 275 miles from Birmingham.

I have had prepared, and wish to submit, a profile of our line, over a part of which we handle this citrus fruit and other perishables from Florida.

Mr. Gwathmey: We offer this exhibit, Mr. Examiner.

(Thereupon the document referred to was received in evidence, marked Exhibit No. 239, Witness Parks.)

Witness: It is received by our railroad from the Atlantic Coast Line Railroad, Waycross, Georgia, also the Seaboard Air Line Railway, Thalmann, Georgia; some few cars are received from the Georgia, Southern & Florida Railroad, Cordele, Georgia. That which is received from the Atlantic Coast Line Railroad at Waycross, Georgia, is [fol. 1522] made up into train at that point, classified as far as possible according to railroads to which it is to be delivered at Atlanta, Georgia, and Birmingham, Alabama; that received from the Seaboard Air Line Railway at Thalmann, Georgia, is picked up in train operating from Brunswick to Nicholls, Georgia, at latter point it is set out and picked up in train operating out of Waycross; that which is received from the Georgia, Southern & Florida Railroad, Cordele, Georgia, is picked up in train operating out of Waycross. Cars picked up both at Nicholls and Cordele, Georgia are, as far as possible, picked up in classification which is made of the perishables in train leaving Waycross. Perishables routed through Atlanta, Georgia, are handled in same train through to that point; those routed via Birmingham, Alabama, are set out at Manchester, Georgia, an intermediate terminal between Waycross and Atlanta, Georgia, where they are placed in train for movement to Birmingham, Alabama. The perishable traffic is handled in train for which schedule is arranged especially for the handling of such traffic, however, when there is not sufficient perishable traffic to fill out such train to tonnage, ordinary freight loaded in box cars is used to fill out. Freight loaded in tank cars, or open top equipment is not permitted to move in the perishable train, as that class of equipment

and load would restrict the speed, making it impossible to maintain the perishable schedule. Perishable traffic pre-
[fol. 1523] vents their being operated on such schedule necessary for the handling of perishable traffic, which is handled on expedited or arranged service, resulting from coordinating of through schedules by interested railroads, and when there is failure on the part of any one railroad forming the through route, to maintain their perishable schedule it results in the perishables they are handling missing a given market. It is necessary to maintain these schedules in order that citrus fruits and other perishables may reach destination for a given market. During 1930-31 season fixed schedule was made for movement of this perishable traffic, such schedule being based on time of receipt of the perishables from the Atlantic Coast Line Railroad, Waycross, Georgia, and Seaboard Air Line Railway, Thalmann, Georgia, and the departure time of railroads operating out of Atlanta, Georgia, and Birmingham, Alabama. Our perishable schedule during 1930-31 season was three hours and 45 minutes faster than schedule operated for handling of same class of traffic during 1927-1928 season. When citrus fruits and other perishables begin to move it is necessary to operate this schedule regardless of the number of cars which may be offered for any given day's movement, and in order to maintain the schedule it is necessary that reduction be made in trainload, as compared with tonnage which is handled in ordinary freight trains, and due
[fol. 1524] to this fact it is very often necessary that we operate extra train service to handle overflow perishables and other tonnage. These cars do not come to us in regular quantities from day to day. The number of cars varies in the early season, and also through the peak movement. There is no regular flow of this traffic. Our line receives this traffic at three junction points. If we receive from Waycross a full perishable tonnage, it will necessitate extra trains being operated southbound, which will be necessary to handle the perishables moving, up to Nicholls, Georgia. Whenever it is necessary to operate extra train service it is very seldom that such is operated on full tonnage, either that which applies to perishable trains or to ordinary freight trains, and quite often on the return move these trains are operated light, there being no tonnage which can be secured. Therefore, when it is necessary we

operate extra train service, which is operated from Fitzgerald to Atlanta, Georgia, a distance of 207 miles. I would like to say that the question I answered was not taken into consideration, in writing this, because it is necessary that we go south from Fitzgerald, Georgia, with extra trains, and return to Fitzgerald, a total of 414 freight train miles, half of which is with a small amount of tonnage; the other half light. During the peak of the perishable movement such extra service amounts to three or four trains per week. On days when perishable traffic received from [fol. 1525] connections is less than train load, it is not always possible for us to secure other suitable traffic to fill out to full train load, and because of the necessity to operate this train for the few cars of perishables received, such results in increased expense per gross ton mile is such train. Perishable trains are given preferred attention, both as to the movement out of terminal, through division terminals, on line of road when coming in contact with passenger and other freight trains, and at icing station at Fitzgerald, Georgia; in fact, everything is done to move the train over the road without delay. Our railroad is a single track railroad and train operation is by time table and train orders.

The territory through which we operate between Oglethorpe and Manchester, Georgia, is somewhat a mountainous country, which restricts the handling of greater tonnage in our northbound trains; the same also applies for the territory between Manchester, Georgia, and Birmingham, Alabama. Between Waycross and Manchester, Georgia, there are five (5) railroad crossings at grade, which are not protected by interlocking plant, and under the law we are required to come to a full stop before crossing, and between Manchester and Atlanta, Georgia, we have two additional such railroad crossings, and from Manchester to Birmingham there are five such crossings. In addition to these stops there are several water, as well [fol. 1526] as coaling stations, and towns through which the speed of the train is restricted, which must be taken into consideration in making such schedules, having effect on the amount of tonnage to be handled in the train, all adding to the expense of operation.

In operation from Waycross to Atlanta, Georgia, the train moves through two division terminals, Fitzgerald and

Manchester, Georgia. At the former crews and engines are changed, and cars of perishables moving under refrigeration are placed at icing station. Perishables and live stock originating in that immedate territory are picked up at that point; at the latter point perishables are set out when destined to or beyond Birmingham, Alabama. The handling of perishable traffic at both intermediate and final terminals is given preferred handling over ordinary traffic, this being necessary to avoid any delay which would prevent the on-time-arrival at destination market. In making up perishable train at Waycross the perishables are segregated from cars containing other freight, which is for the purpose of expediting handling at final terminal on our railroad, at which time traffic is delivered to connecting railroads. During perishable season it is necessary to operate additional switch engine service, as well as clerical forces for the handling of this traffic. Such expense is not necessary in the handling of like amount of ordinary [fol. 1527] freight. There are numerous reports and records necessary in the handling of perishable freight which are not required in the handling of ordinary freight.

In making delivery of this perishable traffic moving through the Atlanta gateway when routed Louisville & Nashville Railroad; Nashville, Chattanooga & St. Louis Railway and Southern Railway, the route over which the transfer train is moved is through a very congested territory, and such movement is made through several interlocking plants, and because of the heavy movement of trains over that part of the tracks, of other railroads, which it is necessary to be used, very often the transfer engine meets with considerable delay, either in going to or returning from the connecting railroad, and in a great many cases in both directions. I am speaking now of handling at Atlanta.

At Birmingham, Alabama, in making deliveries to the St. Louis-San Francisco Railway and Illinois Central Railroad, the transfer train is operated over about nine miles of single track of the St. Louis-San Francisco Railroad, which is operated under block system, and is a rather congested piece of track, and quite frequently our transfer trains meet with considerable delay, both in going to and returning from making deliveries to those lines. Both at Atlanta, Georgia, and Birmingham, Alabama, under agree-

ment with connecting railroads herein mentioned, the in-
[fol. 1528] bound railroad makes delivery into the yard of the outbound railroad.

In breaking up and classifying the inbound perishable train at Atlanta, Georgia, and Birmingham, Alabama, any cars which are bad ordered for light repairs are switched out and placed on a designated track, on which repairs are made; the cars are then re-classified according to the railroad to which they are to be delivered. Such is additional expense and slows up the operation just the amount of time required to perform such service, but such, we feel, is necessary to avoid any delay to the perishable traffic, and were it not for the nature of this commodity and the demand of shippers and receivers, the expense of handling the perishable traffic would not be necessary. Another feature in connection with the handling of perishable traffic which adds to the expense is that of the diversion privilege, which is used both by shippers and consignees, and that, of course, plays a part in slowing up the operation, entailing additional expense in switching service of cars billed on diversion to and from the "hold" track. This service would not be necessary if cars were billed through to final destination. It is our practice to give the very best possible handling to perishables billed either to Atlanta, Georgia, or Birmingham, Alabama, for diversion, and whenever final disposition is furnished at times when inbound perishable trains are being broken up and classified for delivery. [fol. 1529] to connections, we make an effort to deliver the diverted cars along with other cars arriving at that time, which are billed through to destination. This, of course, means somewhat slowing up of our operation in removing the cars from the "hold" track and placing them in proper classification for delivery to connections. If cars billed on diversion are moving under refrigeration, it is necessary that bunkers be examined currently, and whenever re-icing is necessary they must be switched out, run to the icing station for re-icing and returned to the "hold" track, and records necessary to show such handling must be maintained.

Refrigerator cars are generally used for the movement of this traffic. The owner is paid 2 cents per mile loaded or empty. This equipment is usually handled southbound empty for return northbound loading. As a general thing

our empty refrigerator car miles to loaded refrigerator car miles in the handling of perishable traffic runs from 75 per cent to 90 per cent, whereas, the ratio of empty car miles to loaded car miles for cars used in the handling of other than perishable traffic is from 50 per cent to 55 per cent.

The Atlanta, Birmingham & Coast Railroad has no double track line at all. It is a road of very light traffic density. It does not operate through a populous territory. Our towns are very small down through that section. It is mostly an agricultural section. The railroad has not been [fol. 1530] able to operate on a profitable basis at any time since 1915 or 1916. It has been in receivership during that time two or three times, to my knowledge.

Cross-examination.

By Mr. Eshelman:

By reference to my Exhibit No. 239, the points that we handle citrus traffic are at station 20 (just above that is Thallman) we receive from the Seaboard Air Line Railway. That traffic is handled up to station 85, which shows there as Nicholls, Georgia, and if you will drop just below the upper line of the profile, you will find the Sessoms to Waycross branch. These two are consolidated there, and cars are picked up from the Seaboard and operated out of Waycross, and right through over to Oglethorpe, and at the third section down, at Oglethorpe, Georgia, we pick up again, and that is handled up to Atlanta. There is a break in station 255 or 256, at Manchester, and in the lower section of the profile the business for Birmingham and beyond is handled over that section, and to beyond Birmingham, Alabama.

I did not testify as to how many slow freights a day. We operate a perishable and one slow freight which does partly local and partly through work.

[fol. 1531] E. H. Daniel, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am E. H. Daniel, Superintendent of Transportation, Central of Georgia Railway. I have been about 20 years in the operating department.

I am familiar with the movement of citrus fruits and perishables generally originating at Florida points routed via our line to Central Freight Association territory destinations and am conversant with the various transportation features involved.

I have prepared a map or outline of my road showing the route over which the traffic in question moved.

Mr. Gwathmey: We offer this blue print map.

(Thereupon the map referred to was received in evidence marked Exhibit No. 240, Witness Daniel).

Witness: This traffic is received from the Atlantic Coast Line at Albany, M. D. & S. at Macon and the Atlantic Coast Line at Savannah. The red lines on the blueprint map are the lines handling this freight. After receiving this traffic from our connections it is switched into our citrus fruit special for a through movement to our connections. The designation "citrus fruit special" is given our trains whose schedules are arranged for handling citrus fruits and other perishables. These citrus fruit specials are necessary in [fol. 1532] order that cars of citrus fruit and other perishables may reach their destinations for a given market delivery which would not be possible when handled in regular freight train movement.

During the 1930-31 season we had a fixed schedule for the movement of citrus fruit and other perishables. This schedule was based on third morning market from Jacksonville to the principal northern destinations.

Our schedule in 1927-28 was based on fourth morning delivery at the principal destinations. This expedited service resulted in an increase in speed over our line from 18.2 miles per hour in 1927-28 to 24.6 miles per hour in 1930-31 for our citrus fruit special.

We are obligated to protect the movement of citrus fruits and other vegetables on the basic schedules referred to, regardless of the number of cars that may be offered for a given day's movement. In order to maintain the perishable schedule our reduction in train load is approximately 20 percent.

Therefore, the additional expense of operation would be increased by that percentage. On days when perishable traffic offered for movement is less than a train load we cannot in a large majority of the cases find other freight to fill the specials to their reduced rating. The result is we operate them with the tonnage available. The additional expense is approximately in proportion to the reduced tonnage han-
[fol. 1533] dled. We frequently find it to be a fact that we are unable to secure the dead freight to fill out these trains.

As before stated, we receive citrus fruit through three junctions, Albany, Macon and Savannah, destined largely to destinations routing through Atlanta. It has been a practice for a number of years for the lines forming the through route to meet in conference two or three months in advance of the movement to agree on schedules. At that meeting we have the best information available as to when the movement will begin and we make the schedules effective at that time. The schedules are operated beginning on that date with the business available whether one or more cars are offered. This is very expensive, particularly during the beginning and the ending of the movement.

We have the obligation of providing schedule movement for all the perishables through all of the junctions. We might receive the business at Albany from the Coast Line on schedule and move it up to Macon, 107 miles, where we are scheduled to pick up the M. D. & S. connection. It is possible the M. D. & S. connection at Savannah is one hour late. We then face the condition that should we hold for the connection we would miss our connection at Atlanta which would place responsibility with us for 24 hours delay to all of the business we received from the Coast Line. The result is we carry along the Coast Line connection on schedule and provide a
[fol. 1534] special train to handle the M. D. & S. connection from Macon to Atlanta, 103 miles.

Through the operation of this special with approximately 50 percent tonnage we are able to get into Atlanta in time to make the connections. In other cases we might receive the Coast Line connection late and the M. D. & S. connection on time. In such cases we would operate the M. D. & S. connection on time and give the Atlantic Coast Line connection preferred attention as regards reduced tonnage and special handling over the road in meeting trains and in operation through the yards with the hope of getting the delayed busi-

ness to our connections in time to get out of Atlanta on schedule.

We feel obligated to go to this expense in order to try and overcome delays by our connections. We receive this consideration from our connections receiving the business from us.

During the past two or three years through an additional privilege allowed shippers of citrus fruit in the matter of diversions, Savannah has been authorized as a diversion point. This added the third junction through which we would receive citrus fruit. In order that the Central Georgia might maintain its position as one of the major lines handling Florida perishables we felt obligated to protect the business with a citrus fruit special train and schedule. This service was [fol. 1535] begun for the season 1930-1931.

The business would not average more than four or five cars per day and resulted in additional freight train miles of 158 per day.

There are considerable other additional expenses in handling the Florida perishables. Preferred attention is necessary that the schedule be maintained. This means that when the trains reach the different yards, yard engine forces, inspection forces and clerical forces must leave their work to give attention to the perishable train. This results in loss of time and consequently expense.

The character of the equipment used (refrigerators) results in an additional expense. Each load represents practically the movement of an empty car to take care of it and the refrigerator is paid for at the rate of two cents per mile. I am sure a conservative estimate is that we make two hundred miles per day with the load and the empty, which means an expense of $4 per day for the refrigerator as against $1 per day for a box car. Our percentage of loaded haul to empty haul for the twelve month period ending December 31, 1930, was: loaded, 53.3, and empty, 46.7. That is on refrigerators. In the handling of traffic other than perishables for the same period, our loaded haul was 69.7 and 30.3 empty.

We have a very difficult situation at Atlanta in making de- [fol. 1536] livery of our business to our connections, the Nashville, Chattanooga & St. Louis, Louisville & Nashville and Southern.

The distance between our yard and the Nashville, Chattanooga & St. Louis yard is 10 miles, to Southern Railway

yard 7½ miles, and to Louisville & Nashville yard 8 miles. It is necessary for all of the transfers in making these deliveries to move through the heart of Atlanta. In fact, the transfers for the Nashville, Chattanooga & St. Louis and Louisville & Nashville pass under the terminal passenger station and it is necessary for a flagman to precede the engine while moving on terminal station tracks.

In making deliveries to the Nashville, Chattanooga & St. Louis we use eight interlocking plants, 23 grade crossings over which city ordinance restricts speed to 10 miles per hour.

In making deliveries to the Louisville & Nashville we use three interlocking plants and pass over 17 grade crossings.

In making deliveries to Southern Railway we use five interlocking plants and 18 grade crossings.

I have not the information as to how many cars of Florida citrus fruit the Central of Georgia handles each year moving to territory north of the Ohio River, but I would say it would be about 8,000 cars.

[fol. 1537] When I said the business averaged four or five cars per day, I meant that we agreed to put on this citrus fruit special. That obligated us to operate the trains regardless of the number of cars involved and the actual check for the season of the business would not average four or five cars. What we did was to run the train and these additional 158 train miles resulted from the extra citrus fruit cars.

I would say we handle close to 8,000 cars of oranges and grapefruit. That is to Central Freight Association territory.

Cross-examination.

By Mr. Eshelman:

The miles per hour that I gave is based upon the departure from the initial station and the arrival at destination. When I spoke of a reduction in tonnage of 20 percent, that means a reduction in tonnage in our manifest train rating. We have different tonnages for the different trains. That also was the fact before 1930. I figure that 20 percent reduction in tonnage would mean roughly a 20 percent increase in expense. That ratio would practically hold right straight through; if we had a 90 percent reduc-

tion in tonnage there would be a 90 percent increase in expense, considering certain items that enter into that expense. The items that I carry into that would mean the [fol. 1538] expense of the train such as engine crew and the coal. It does not include overhead.

The miles per hour is based on the departure from Albany and arrival at Atlanta. The dead time is not taken out.

By Mr. Gwathmey:

I would like to offer the last exhibit which shows the schedules.

(Thereupon the document referred to was received in evidence, marked Exhibit No. 241, Witness Daniel.)

C. M. MITCHELL, having been first duly sworn, testified as follows:

Examined by Mr. McGehee:

I am Superintendent of General Transportation, Southern Railway System, Cincinnati, Ohio. I have been connected with the Transportation Department of the Southern Railway lines for thirty years.

I am familiar with the handling of traffic over the Southern Railway System lines between points in Florida and points in Central Freight Association territory and am familiar with the movement of citrus fruits and perishables generally originating at Florida points routed via our line to Central Freight Association territory destinations and I [fol. 1539] am conversant with the various transportation features involved.

I have prepared a map or outline of my road, the Southern Railway System, showing the route over which the traffic in question is moved.

Mr. McGehee: We offer this, Mr. Examiner, as Exhibit No. 242.

(Thereupon the document referred to was received in evidence marked Exhibit No. 242, Witness Mitchell.)

Witness: Citrus fruit from Florida moving in connection with the Southern Railway System lines, as outlined on the map, is received from the Florida East Coast Railway at Jacksonville, Florida, the Seaboard Air Line Railway, at Everett, Georgia, the Atlantic Coast Line Railway at Jessup, Georgia, the M. D. & S. Railroad, at Macon, Georgia, and the Atlanta, Birmingham & Coast Railroad, the Central of Georgia, and the Georgia Railroad, at Atlanta, Georgia, and from the Central of Georgia and the Nashville, Chattanooga & St. Louis, at Chattanooga, Tennessee. After receiving this traffic from our connections (in the case of the Florida East Coast Railway at Jacksonville, it is delivered in our yard by that line) it is made up in through train at our Grant Crossing yard and forwarded at 2:30 P. M., and run through on fast schedule to Macon and Atlanta. In the case of the Seaboard Air Line at Everett, traffic is received and departs from Everett [fol. 1540] about 5:30 P. M. in through schedule, picking up business from the Atlantic Coast Line at Jessup, delivered us about 8:15 P. M., and run through on fast schedule to Macon or Atlanta, where it is consolidated with the train from Jacksonville above referred to, and run through to Cincinnati on a fast schedule, arriving Cincinnati at 4 A. M. second morning. Business from the M. D. & S. at Macon is dispatched from that point about 7 A. M., run through to Atlanta, where it is consolidated and held with other business which may be received from connections at Atlanta as above referred to, and depart from Atlanta at 1 P. M., arriving Cincinnati 6 A. M. following morning.

I say that business from Jessup and Everett and Jacksonville is run from Macon or Atlanta. Sometimes we take it through to Atlanta and consolidate it, and sometimes we consolidate it at Macon.

We do not move this traffic over our line in the same trains that we ordinarily handle dead freight in. The ordinary freight service would not give the service demanded by the shippers and receivers which we offer them. In order to get the fruit to the market, fresh and in good condition, we run it in this faster service.

"Expedited" or "arranged" service is service which we specially set up for handling perishable freight, and it is not allowed to be delayed by other business except our

[fol. 1541] through passenger trains; in other words, other business is subordinated to this "expedited" service. The operation of these expedited or arranged service trains is made necessary in order that cars of citrus fruit and other perishables may reach their destinations for a given market delivery, which would not be possible when handled in regular dead freight movement.

During the 1930-31 season we had a fixed schedule for the movement of citrus fruits and other perishables. I have the schedules here.

The following is a comparison of the schedule during the 1930-31 season as compared with our schedule for the movement of the same class of traffic in the 1927-28 season:

1930-31					1927-28				
					No. 52		No. 54		
No. 52	2:30 P.M.	1st ET	Lv.	Jacksonville	Lv. 12:10 P.M.	1st	10 P.M.	1st	
	5:30 P.M.		Lv.	Everett	Lv. 8:50 P.M.				
	8:15 P.M.		Lv.	Jessup	Lv. 9:40 P.M.				
	4:00 P.M.	3rd CT	Ar.	Cincinnati					
No. 54	7:00 A.M.	2nd ET	Lv.	Macon	Lv. 8:30 A.M.	2nd	12:45 P.M.	2nd	
	1:00 P.M.		Lv.	Atlanta	Lv. 4:30 P.M.		7:20 P.M.		
	6:00 A.M.	3rd CT	Ar.	Cincinnati	Ar. 3:00 A.M.	4th	5:30 A.M.	4th	
	6:30 A.M.	3rd	Ar.	Louisville	Ar. 1:40 A.M.	4th	6:45 A.M.	4th	

[fol. 1542] Time Consumed

	1930-31	1927-28
Jacksonville to Cincinnati	38′ 30″	No. 52—62′ 50″
		No. 54—55′ 30″
Jacksonville to Louisville	41′ 00″	No. 52—61′ 30″
		No. 54—56′ 45″
Atlanta to Cincinnati	17′ 00″	No. 52—34′ 30″
Atlanta to Louisville	17′ 30″	No. 52—33′ 10″
		No. 54—35′ 25″

We are obligated to protect the movement of citrus fruits and other perishables on the basic schedules referred to, regardless of the number of cars that may be offered for a given day's movement. I mean that we advertise and solicit this business on the basis of these schedules, and if we are given traffic it is our obligation to move it on these schedules even though there might be only a few cars. Those schedules are arranged every season and given to the public, and we hold ourselves out to handle any traffic that is given to us on those schedules.

In order to maintain our perishable schedule, we have found it necessary to make a reduction in the train load as

compared to tonnage handled in our slow freight trains. Our tonnage for dead freight trains and "expedited" or "arranged" service on each freight district is as follows:

	Dead Freight.	Expedited.
Jacksonville-Macon	2100 tons	1700 tons
Everett-Jessup-Macon	2100 "	1600 "
Macon-Atlanta	2000 "	1800 "
[fol. 1543] Chattanooga-Oakdale	27500 "	2500 "
Oakdale-Helenwood	1500 "	1500 "
Helenwood-Danville	2000 "	1500 "
Danville-Cincinnati	3000 "	2500 "
Danville-Louisville	1450 "	1350 "

Curtailment of the train load of our perishable trains means a loss of the following number of tons on each freight district as above referred to, which means that additional trains have to be operated to take care of the tonnage that might have been handled on these trains at a slower schedule. It is also necessary in many instances to use more yard service in order to expedite the movement of these trains through the yards.

Loss

Jacksonville-Macon	400 tons
Everett-Jessup-Macon	500 "
Macon-Atlanta	200 "
Atlanta-Chattanooga	100 "
Chattanooga-Oakdale	250 "
Oakdale-Danville	500 "
Danville-Cincinnati	500 "
Danville-Louisville	100 "

In order to make our schedules on these perishable trains we have to reduce our tonnage by the amounts between the designated points to which I have referred as lost tonnage. [fol. 1544] On days when the perishable traffic offered for movement is less than a train load, it is frequently necessary to run these trains light, it not being possible to secure other tonnage to fill them out to even their perishable tonnage as above referred to, which necessarily involves additional expense in that we do not get the benefit of the full engine

rating. We do not only lose tonnage in the direction of the traffic, but we also, in many instances, have to run light power south, in order to protect these light trains north. Trains handling citrus fruits and other perishables are invariably given preferred attention. All other trains except through passenger trains, as a rule, are side-tracked on line of road, and considerable other yard work delayed while these trains are being handled through the yards. It is necessary in order to make these schedules for us to side-track our local trains a large percent of the time and we do that.

The mileage from Jacksonville to Cincinnati is 834.9, the mileage from Everett to Cincinnati is 742.8. In this number of miles, we have 266.85 miles of double track up to Cincinnati, and 165.7 miles of double track to Louisville, Kentucky. These perishable trains daily come in contact with other freight trains or with high class passenger trains, especially those of a seasonal nature. It is necessary to handle these trains through heavily congested yards at [fol. 1545] both Atlanta and Chattanooga, over which portions of tracks the trains and engines of other roads and divisions operate; many interlocking plants necessitating slower movement. You will note from map (Exhibit No. 242) that the grades frequently break which necessitates reducing tonnage over the freight district or portion of freight district, requiring train to be split. The ruling grade is shown on that exhibit. These two trains then must be kept as close together as practical operation warrants, so that they may arrive at end of freight district where it is again necessary to consolidate them, all of which requires special handling and additional switch engine service to perform the work. In addition to which we have upwards of 40 restrictions on speeds including railroad crossing stops, city ordinances, tunnels and bridges that retard the movement of trains which necessitates higher speed and lower tonnage while running. If we were fortunate enough to have a train with 2,500 tons of citrus fruit that reached Oakdale, destined to Cincinnati, at Augusta we would have to split it and run 1,500 tons in the first section, and follow it up with the other 1,000 tons on another section, behind that on account of the grade.

In the terminal handling of this perishable business we give it preference over other freight movement because

perishable freight is of such a nature that it requires prompt handling, and a slight delay will, in many cases, miss con- [fol. 1546] necting trains of other lines, which means a delay, and in many instances 24 hours later delivery destination. Receivers of perishable freight, as a rule, know where their business is and just when it will arrive, and in many cases they have buyers or inspectors on hand waiting for placement of the cars, and in the interest of good service it is necessary that perishables be delivered immediately on arrival. In making up trains for line movement the cars of perishables are segregated and handled together in trains, in order to give it proper handling, such as moving it promptly to icing platform and making quick deliveries to auction houses and connections for disposal or dispatch on connecting trains and arrival at terminals.

It requires more engines and clerical force to handle a large volume of perishables than dead freight, as it must be handled more expeditiously. Citrus fruit is manifested and passing each district terminal reported to this office by wire, to the general superintendent of transportation at Cincinnati, Ohio, copy of manifest Forms 3050, 4767, 84, 4769 and 4831 attached, and this office in turn furnishes the passings to various consignees by local or long distance telephone or Western Union telegrams, this information demanded by receivers. An elaborate ventilation and refrigeration record is maintained as a protective measure, that is, protecting [fol. 1547] this commodity against heat and cold, or in other words in the safe transportation of the fruits, this involving time and expense of yard clerks in compiling the data; operators in transmitting the information to interested parties, and the compiling, assembling and transmitting the data at destination, clerical hire and stationery.

The difficulties at yards and terminals on our road in connection with the handling of this traffic has been answered under other heads such as slow movement through yards due to other traffic interference in way of switch engines and trains, and trains and engines of other roads and divisions, the necessity for keeping perishable together, the inspection of bunkers and the preparation of records such as the position of vents, amount of ice in bunkers, inspection of waybills as to whether or not cars should be iced at all regular stations, or certain icing stations, or whether they require salt or not. Additional inspectors and

repairmen are provided for the arrival of perishable trains, in order that the work may be done expeditiously, and all cars that are found bad ordered are immediately repaired in the yard where such repairs are possible without delaying the traffic switching it out and taking it to repair tracks. Where such repairs cannot be made in the yard, special runs are made by switch engines to the repair tracks and repairmen taken off of other work to condition the car for [fol. 1548] prompt movement. It is frequently necessary to call out car repairers at night and on Sunday, paying them additional time to repair cars and get them going without delay. This is more expensive than dead freight, because dead freight could be thrown out and repairs made in the regular order of business. When I used the term "thrown out", I mean that the car was taken out and repaired and handled on a later train. These repairs necessitate extra switching and time, extra forces to make repairs, a special repair track with needful supplies and appliances in order to effect quick handling that would not be necessary in the case of less important traffic.

Thereupon, an adjournment was taken in the above-entitled matter until October 21, 1931.

[fol. 1549] Interstate Commerce Commission

Washington, D. C., October 21, 1931.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

C. H. MITCHELL, resumed the stand for further direct examination.

Examined by Mr. McGehee:

These operations result in added expense to our line. The nature of the commodity being transported and the exacting demands of the shippers and receivers of perishable freight make such expense necessary.

The diversion privilege is used extensively on Southern Railway System. Where records were available I had

worked the data as far back as 1926. Partially, this is what happened: Cincinnati for example, seasons 1926-27, 5,367 cars handled, of which 4,271 were reconsigned; 1927-28, 4,255 cars, diversions 3,346; 1928-29, 4,871 cars, diversions 3,730; 1930-1931, 9,747 cars, diversions, 7,713, 75 to 80 per cent of citrus fruit handled through Cincinnati is reconsigned with our line. That is shown on the statement marked Exhibit D.

Mr. McGehee: Exhibit 242 is a mileage chart of freight [fol. 1550] districts; Exhibit 243 is fast freight service from Florida on perishable traffic, through schedules giving prompt delivery of citrus fruits and vegetables at Northern, Southern and Western markets; Exhibit 244 is perishable schedules between Cincinnati, Louisville and Florida points, train No. 52; Exhibit 245 is perishable schedules between Cincinnati, Louisville and Florida points, train 52; Exhibit 246 is perishable schedules between Cincinnati, Louisville, and Florida points, seasons 1930-1931; and Exhibit 247, being form of Southern Railway System, Lines West, from the office of General Superintendent of Transportation.

That is just an illustration of the telegraphing and work that is necessary to keep track of this business from its origin to its destination as far as our line is concerned, passing at different terminals. Exhibit 248, diversions—citrus fruits, Jacksonville, and the same thing would be true of diversions at Cincinnati, marked Exhibit 249. Exhibit 250 shows diversions at Atlanta.

These diversions tend to retard the movement to a very great extent, necessitating cars that are moving to a given destination having to be switched out of trains, reclassified in other trains, and not only result in additional expense but results in delay to the trains in which they are moving. More switching is required in order to switch these diverted cars in and out of trains and into proper classifi- [fol. 1551] cation than in the case of cars billed to final destination. This extra switching has a very great effect on other yard work for the reason that when perishable trains are being handled through the yards other work is delayed, giving the perishable preference, and the longer it takes

to despatch a perishable train through the yard the more expense and more delay to other business.

The additional cost in connection with the diversion of perishable traffic is principally in clerical work and having to take cars billed to destinations for diversions to hold tracks, and then after diversion orders are received these cars must be switched out, taken to the icing platform, re-iced and classified for further movement. We have had at Cincinnati alone more than 100 cars held on our hold tracks awaiting disposition, and these cars have been disposed of for which we received no reconsigning charges, from one to many at a time which required switch engines drilling them out from among the total. If we have a hundred cars of citrus fruit in our yard at Cincinnati and have not placed them on our hold track and get an order to reconsign four or five cars we have got to drill through that 100 cars to pick out those four or five and switch those to our connections.

Refrigerator cars generally are used for the movement of this traffic for which a payment is made of 2 cents a mile loaded and empty. We do not get a loaded haul in both [fol. 1552] directions for these cars. The loaded haul is northbound. The empty movement is 90 percent or more southbound.

The next exhibit which I wish to offer is the connecting line departures. This is a statement showing the latest hour that we can accept a reconsigning order for a car and get that car switched out and re-iced and delivered to our connections for movement on their scheduled trains to specified destinations. The statement also shows the time the car must be delivered to the connection and also the departure of the connecting line train.

To illustrate that, at Cincinnati the Pennsylvania Railroad has a specified time at which their perishable train leaves, at which time we must make delivery to them. If we have a reconsignment order for four or five cars we have to stop everything else and take a switch engine and crew and deliver those cars to the Pennsylvania in order to make that schedule or else there is a substantial delay on those cars.

The next exhibit is interchange of loaded and empty refrigerators at connections in citrus fruit territory. That

gives Jessup, Jacksonville and Everett and the Seaboard at Hampton. That exhibit is one page.

The next is an exhibit of empty refrigerators moving south for the return citrus fruit movement.

The next is a map of the Cincinnati terminal showing [fol. 1553] the break-up yard into which this business is handled in our through trains from Lima Road and the distances from this break-up yard to each connection giving the approximate time it takes a switch engine to go to these yards with the perishable freight. It is about 9½ miles from our yard to the point at which we usually make delivery to the Pennsylvania Railroad. That is the Undercliff Yard of the Pennsylvania Railroad. It averages about 4½ hours for a switch engine and crew to go from our yards to this Undercliff Yard of the Pennsylvania Railroad, about two hours and fifteen minutes each way. It takes 4½ hours for the roundtrip. The great majority of the citrus fruit is not delivered at Undercliff Yard. Undercliff Yard is our point of regular delivery to the Pennsylvania but when time is close we have an arrangement whereby we call up the Pennsylvania and they send a yard engine to meet us. Sometimes we make delivery at Vine Street Yard, 2.99 miles from our yard. I would say that our perishable traffic as a whole is about evenly divided between delivery to Undercliff Yard and Vine Street Yard. Regular deliveries are at this Undercliff Yard, but on perishables, where the connections are close, and they are usually close, we make this joint service at Vine Street.

We have to carry this traffic between one and one half and two miles to the Big Four. That requires about one hour and ten minutes for our switch engine and crew to make the round trip. We make all deliveries at that point. [fol. 1554] If we have an order for four or five cars to be reconsigned there we have to take a special engine and crew and handled whatever cars are reconsigned so as to get them there in order to avoid a 24-hour delay. In connection with our dead freight that is delivered to our connections at Cincinnati we do not have any such situation as that. We have a regular order of business and have certain times each day to make deliveries.

The next exhibit is a similar map of Louisville, Kentucky. The situation is about the same except that we deliver to the Monon, Baltimore & Ohio and the K. & I. yard. The

K. & I. yard is joint with our line and the deliveries accomplished on arrival.

(Said documents were offered in evidence and marked Exhibit Nos. 243 to 256, both inclusive, Witness Mitchell.)

We do not receive considerable traffic from the Coast Line at Jacksonville for C. F. A. territory. It comes through Jessup.

Cross-examination.

By Mr. Eshelman:

There is no charge for reconsignment of perishables at Cincinnati. Cincinnati is our diversion point and we simply make them from that point. It is not the only diversion point. I have some figures there in an exhibit showing di-
[fol. 1555] versions at Atlanta and other points but I only made Cincinnati a specific instance in my testimony. On traffic destined to C. F. A. territory perhaps that would be our chief diversion point.

In general the manner of handling to which I testified was the same in the season of 1928-1929 as at present except as to speed.

I spoke of getting trains from the Macon, Dublin & Savannah. That would be perishable freight. They set up a connection for perishables during the perishable season. It originates on the Seaboard Air Line that is billed on Savannah or billed on some other point north and is diverted, as I understand it, and it comes out of Savannah to Macon on the M. D. & S. I am not sure that the M. D. & S. reaches Savannah. The principal route on Seaboard traffic through us is through Everett but this is traffic out of route or diverted after it passes Everett. It comes to us at Savannah.

The traffic I refer to as being received at Chattanooga is perishables but I might say it is the same class of traffic that I spoke about at Macon. It is perhaps out of route or diverted after it passes Atlanta. The witness for the Central of Georgia did not color that portion of his system to indicate the delivery to us of perishables at Chattanooga because what little we would get would be perhaps diverted business or out of route business. The schedules which I
[fol. 1556] have shown include the intermediate terminal

time. Our schedule time from Jacksonville to Cincinnati is 38 hours and 30 minutes. Our terminal time is four hours and 35 minutes and our running time is 33 hours and 55 minutes. From Brunswick 38 hours schedule, terminal 8; running time 30. Miles per hour from Everett to Cincinnati is 20.92. If you take out the terminal time that will run it up to 25 miles an hour. I give you that as an example. There was no change in our arrangement before and after this last change of schedule whereby we made stops at Everett and Jessup. We have been doing that for years. I would not say that the greater part of the shrinkage in time came out of the terminal time; some of it did.

Prior to the present schedule we made substantially the same stops at Atlanta and Jessup that we do now.

I heard a witness yesterday state that the reduction of tonnage for perishable trains as compared with dead freight trains substantially produced a like percentage of increase in expense of operation. It is problematical whether that is the experience on our road. So far as our road is concerned, it does increase the expense but I would not care to say just how much.

When business is good like it was last year we run solid trains of perishables and one of our additional expenses was that in many instances we had to run two solid trains [fol. 1557] and the second one would be late. That conditions obtains from early in December until the first of March I do not mean during that time every train we would run would be solid perishables. I mean it fluctuates from day to day. Some days you have less than a train that you would fill out with other commodities. Other days you would have a solid train. Other days you would have more than a train. There is no regularity about it. If there was a reduction in tonnage so that your could carry that fill-out on your perishable train, then you would not have to run another dead freight train to take the fill-out that you could have brought on this train.

Our perishable or expedited trains would carry about 400 tons less on the section from Jacksonville to Macon, than our dead freight train which would be at least eight cars. It would depend upon what that 400 tons consisted of as to whether it was dead freight or as to whether it was perishables. If it was perishables we would have to run it; if it was dead freight we might hold it up for a following train.

I do not know whether the shortening of the schedule to central territory was a direct result of the shortening of our schedule to the east by reason of similar shipper demands or competitive conditions because I have no jurisdiction over the eastern lines of the Southern Railway. I [fol. 1558] know of no reason for it except the demand of the shippers and a desire to get the fruit to the destinations in good condition. I do not believe I can tell you what would be our percentage of perishable tonnage received at Cincinnati and Louisville as compared to our total tonnage receipts there northbound without making a study of it. It would be very much more than two and one half to five per cent but I would not like to make a guess without knowing more about it.

When I said that from Jacksonville to Macon the expedited service would entail a loss of 400 tons and from Macon to Atlanta 200 tons that means that our expedited train tonnage between Jacksonville and Macon would be 400 tons less than our dead freight tonnage there and that between Macon and Atlanta our dead freight tonnage would be 200 tons more than our expedited service between those points, but there is not a cumulative loss of tonnage as we go north. That is just the specific loss between those points. Those are freight train districts. When we bring a train from Jacksonville to Macon we start in another district with different crew, different engine, and we build up other trains and that is our loss between those specific points.

I would say it is something like 35 miles from Oakdale to Helenwood.

[fol. 1559] Redirect examination.

By Mr. McGehee:

I said that the situation now was the same as it was in 1928-1929 except the cut in the running time of these trains. I also stated that the shrink in time came in part out of the time we had taken previously at the terminals. Where we shrink our time at these terminals to get our trains through rapidly that adds very greatly to the expense. In fact, in getting these trains through the terminals we just lay aside almost everything else and call in all the extra inspectors and switch engines and things of that kind and stop everything

else until the trains are gotten through. That is how we cut the time, by paying for it.

We fill out trains when we do not have enough perishable freight to make a train. It very frequently happens that we do not have enough dead freight to fill out and have to run a train with a very few cars of perishables. For example, out of Jacksonville to C. F. A. territory we have practically no dead freight moving at all—very few cars.

From Atlanta to Chattanooga it is mountainous to a certain extent. On the line from Chattanooga to Cincinnati, from Oakdale to Danville it is practically all mountains, up one hill and down the other side, and full of sharp curves and tunnels. We have 16 tunnels on our line between Chatta- [fol. 1560] nooga and Cincinnati.

C. E. Gay, Jr., having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am Charles E. Gay, Jr., Receiver and General Manager, Savannah & Atlanta Railway. My experience in railroad service began in 1897 as chainman on construction. I worked through various positions in the engineering department to Resident Engineer; in operation as roadmaster's clerk and assistant engineer of maintenance of way. For two years I was agent of the Industrial Department of the Southern Railway, engaged in locating industries and general development work on that line; eight years in traffic department of the Southern Railway as general agent and commercial agent. I was with the Savannah & Atlanta Railway and its predecessor companies from 1913 to the present time, entering service as traffic manager, Vice-President and Traffic Manager, Vice-President and General Manager, President and General Manager until 1921, and Receiver and General Manager since that time. That road has been in receivership since March 4, 1921. It operates between Savannah [fol. 1561] and Camak, Georgia. Camak is on the Central of Georgia Railroad, 145 miles from Savannah and 121 miles from Atlanta. Our line is approximately 145 miles long.

We handle approximately 2,700 cars of all fruits and vegetables (perishables) from Florida. About 70 percent of

that would be represented by oranges and grapefruit. Our company is rather an important factor in the movement of this total tonnage from Florida to the territory north of the Ohio River.

I am familiar with the movement of citrus fruit and other perishable commodities moving from Florida points to C. F. A. territory and have directed the solicitation and transportation of this traffic for the past twelve years. I have prepared a map showing the connections from which the traffic is received on our line and the route and connections to which it is delivered, and herewith file it as Exhibit 257 with my testimony. Practically all of this perishable traffic is received at Savannah from the Atlantic Coast Line Railroad and the Seaboard Air Line Railway. The cars from the Seaboard Air Line Railway are placed on the interchange track in Savannah, and those from the Atlantic Coast Line at Central Junction, four miles from Savannah. As soon as the cars are placed on the interchange track they are inspected as to the physical condition of the cars and their fitness to be run. Yard clerks check the bills, the cars, and make the scale [fol. 1562] record. The cars are then ready for movement to the yard to be switched into the perishable train which moves them to Camak and makes delivery to the Georgia Railroad.

We handle this traffic in perishable freight trains. We do not handle it in our ordinary freight trains because the nature of the commodity requires much faster handling. The schedule has to be quickened. I would class this traffic with livestock. It is a perishable agricultural product and must be moved in the shortest possible time. The traffic must reach the market in the best possible condition.

Our line forms a part of a through route and our schedule is arranged so as to move cars delivered us at a certain hour to our connection at a certain hour. Failure to do this may result in a heavy penalty. These cars must be at certain points at certain hours so as to be iced, diverted and delivered to other connections in any one of the many routes over which the cars may be moved. It is a schedule fundamental that these cars must not consume more than a given number of hours between icing stations and terminal points.

During the season of 1930-1931 we had a fixed schedule for citrus fruit and other perishable commodities. Our schedule was formulated to fit in the schedules of connections to the

North and South of us and with through schedules to the [fol. 1563] Ohio River which were necessary to protect the connection north of the Ohio River. We had to conform our schedule arrangements to those of our connections at both ends of the line. We were given certain hours in which to move this traffic a given distance.

Our haul on this traffic is 145 miles. The first perishable schedule operated was nine hours. This was afterwards made ten hours and during the 1930-1931 season seven hours or 30 percent less than the 1929-30 season. The nine-hour schedule was in 1921. We are obligated to protect the movement of citrus fruit and other perishable commodities on the basic schedule referred to regardless of the number of cars that may be offered on any day. The movement of this traffic varies. It is divided en route and we frequently have very little notice as to what will be delivered to us. We sometimes find it necessary to run an extra section of the train. At other times traffic is not sufficient to justify an additional section and trains are double-headed. There is a very great fluctuation in the volume of business from day to day and that effects our train operations materially. In order to maintain our perishable schedule we have found it necessary to reduce the tonnage of the trains as compared with the tonnage handled by our ordinary freight trains. Our locomotives on perishable schedule are rated at 85 percent of their capacity on ordinary freight trains. We have additional ex- [fol. 1564] pense on account of the additional switching of cars left in the yard and sometimes it is necessary to run light trains to handle dead loads of certain classes which can not be handled on perishable schedules because of speed restrictions on such traffic, such as creosoted poles, lap loads or any other cars that can not be safely handled at high speed. We also have additional expense on account of the necessity of having other engines and crews ready to protect the movement of this traffic and other traffic that can not be handled on the perishable schedule.

I mentioned creosoted poles. We have a creosoting plant on our line. I am sorry to say that the volume is not very large just now and has never been a very large item of tonnage with us going West.

On days when perishable traffic offered for movement is less than train load generally we are able to fill out the perishable trains to full tonnage with other commodities that

can be handled at high speed. On other occasions we find it necessary to run additional trains with light tonnage. During the height of the season about 50 percent of the time we run additional trains with light tonnage or double-head one train.

These perishable trains are operated on time-table schedule and all other trains must clear in accordance with the [fol. 1565] standard train rule. Our line is all single track.

The Savannah & Atlanta Railway was very cheaply constructed. Little work was done and consequently we have very heavy grades over a large part of the line. I am filing sections of our profile as Exhibits 258, 259, 260, 261, 262 and 263. You will note on Exhibit 258 a piece of grade of 2.4 per cent. That is between mileposts 52 and 56; Exhibit 259, piece of grade of 2.55 per cent; Exhibit 260 a piece of grade of 2.62 per cent; Exhibit 261 a piece of grade of 2.90 per cent; Exhibit 262 a piece of grade of 2.90 per cent, and on Exhibit 263 a piece of grade of 3.16 per cent and 3.20 per cent. All of these grades are against the westbound traffic. I am only giving you the difficulties on the westbound movement. From these profiles you can readily see that it is necessary to handle light tonnage and to load locomotives at not more than 85 per cent of their tonnage rating.

We have five railroad crossings, four of which are not protected by interlocking plants. In addition to this we have almost innumerable highway crossings. Near one of the railroad crossings, as shown on Exhibit 251, near the 58 mile post, the grade is very stiff. It is, in fact, the ruling grade, and during the last season, that is 1930-1931 season, we have found it necessary to place a flagman on this crossing as it would be impossible to get the train over [fol. 1566] the grade and anything like maintain schedule.

Since the shippers in Florida commenced using Savannah as a diversion point the Savannah & Atlanta Railway has made every effort to keep its line in condition and to improve its facilities so as to provide the schedule required. Savannah is a very important diversion point, especially on the traffic moving to the west, because of the fact that it affords late diversion. The receiver has invested a little over $9,600.00 per mile in reducing grades laying some rail and generally improving the road bed and

other facilities. Some of the grade reductions are shown by the yellow grade lines on the profile filed as exhibits.

The terminal handling of this perishable business is given preference over other freight. The interchange tracks must be cleared and ready to receive this traffic when offered. The time allotted to the Savannah & Atlanta Railway in which to deliver this traffic to our connection at Camak is so short that every effort must be made to save a possible delay.

In making up trains for line movement all perishable cars are switched together so as to expedite the delivery of cars at our final terminal and to save the time of switching them at the end of the run. The time required to make these special classifications is really a part of the time allowed for our part of the through service.

[fol. 1567] During the perishable season it is necessary to use extra switch engines, clerks and supervisory forces to handle the perishable traffic for reasons already explained. This extra expense would not be required in order to handle the same volume of ordinary freight. Careful and complete records must be made of icing, ventilating and diversion records, checking receiving tracks from connections and special passing reports, which are not maintained on ordinary loads. The traffic moving from Florida reaches Savannah at night and there is always some drop in temperature, and frequently a very considerable drop in temperature. The waybills on which the cars move indicate as to just how the ventilation or refrigeration should be handled and this must not only be carefully done, but a very complete record made of any changes that are made. Failure to comply with these requirements may result in heavy losses.

All of this perishable traffic is received from connections. The interchange tracks are four miles apart, and before the cars are moved from these tracks they must be carefully inspected and all records taken. We find it necessary to keep a switch engine on duty to handle these cars promptly when received. We frequently have to hold a switch engine crew and inspection forces to take care of late diversions that are not delivered on the first transfer. That is at Savannah. Cars are inspected as soon as they [fol. 1568] are placed on the transfer and those found in bad order that can be repaired in the train without delay,

are repaired. All of the work is done at night. Where heavy repairs, such as changing wheels, renewing arch-bars, and so forth, are necessary, the cars are switched from the train, taken to the repair track and sometimes it is necessary to call a repair force so as to move the cars on the next train. In cases where we cannot repair the cars under load, they are switched to the transfer platform and clerks and truckers of the Agency force are required to make the transfer at night. In many of these cases the cars must be iced and prepared for the load. It is not necessary to incur these items of expense in handling ordinary freight. The nature of the commodity being transported and the service that must be rendered makes the extraordinary efforts to expedite the traffic mentioned above necessary.

A very large percentage of the traffic is moved in refrigerator cars. These cars must be moved to their loading point light. The handling of the empty cars on our line is about equal to the loaded movement. We pay to the owners of the cars 2 cents per car mile for both the loaded and empty movement. In handling this traffic about 60 per cent of the total mileage is loaded.

Mr. Gwathmey: We tender these exhibits.

(Said Documents, so offered, were received in evidence, [fol. 1569] marked "Exhibit 257 to 263, both inclusive, Witness Gay" the same are forwarded herewith.)

Cross-examination.

By Mr. Eshelman:

The Atlantic Coast Line and the Seaboard Air Line have no interest in our road. They got a longer haul on traffic going to C. F. A. territory by turning it over to our line at Savannah than they would if it were turned over to the Southern at Jessup or Everett. Their Florida haul is longer to Savannah than it is to Jessup or Everett. Our diversion point corresponds to the connection with the Central of Georgia at Albany. There has been a route through Savannah long before our railroad was built.

By Mr. Gwathmey:

About 99.44 per cent of this traffic is routed by the shippers. If a car gets out of Florida without being routed, I have not seen it.

By Mr. Eshelman:

We have off-line agencies soliciting at Chicago, Savannah, Nashville, in Florida, and a lot of good friends down there to help us out.

[fol. 1570] W. D. PORTER, having been first duly sworn, testified as follows:

Examined by Mr. Northcutt:

I am W. D. Porter, Inspector of Transportation, L. & N. Railroad. I am familiar with the transportation service over that entire railroad. I have had occasion in the performance of my duties to become familiar with the entire transportation service of the railroad. I have been with the L. & N. about thirty years. I have made a particular study of the matter of transportation of citrus fruit.

In connection with the movement of citrus fruit, originating at Florida points destined to Central Freight Association territory; I have to advise that the larger percentage of this business, handled by the Louisville and Nashville Railroad Company, comes to our line at Atlanta, Georgia, from the Central of Georgia, the A. B. & C. and the Georgia railroads, being delivered to the L. & N. R. R. by the Atlanta Joint Terminals in what is known as Hulsey Yard in Atlanta. The L. & N. then moves this business to DeCoursey, Kentucky, their freight yard located 6 miles south of the Ohio River directly across the river from Cincinnati, Ohio. The distance of this road haul is approximately 480 miles. From DeCoursey the business is delivered by switch or transfer engines to connecting lines on the north side of the Ohio River, with the exception of [fol. 1571] the C. & O. Railway, to which connection delivery is made at what is known as K. C. Junction on the south side of the Ohio River.

The Louisville and Nashville Railroad also receives considerable of this business from the Atlantic Coast Line and the Seaboard Air Line at Montgomery, Alabama; the Central of Georgia and the A., B. & C. Railroads at Birmingham, Alabama; and the N., C. & St. L. Railway at Nashville, Tennessee, for movement through Evansville

and East St. Louis gateways. The L. & N. road haul distances on this business are as follows:

Montgomery	to	Evansville	458 miles
"	"	East St. Louis	619 "
Birmingham	"	Evansville	358 "
"	"	East St. Louis	519 "
Nashville	"	Evansville	156 "
"	"	East St. Louis	317 "

I wish to file here print of a sketch of the Louisville and Nashville Railroad showing its entire system of main lines and connections. This print is marked Exhibit 264.

The Louisville and Nashville Railroad does not propose to handle this business in ordinary freight trains, nor even in fast freight trains on the regular schedules of such trains, over the routes mentioned, but have gone to extreme lengths and during the past season of 1930-1 (October to [fol. 1572] June inc.) put this business on a special schedule Atlanta to DeCoursey (Cincinnati), and from Montgomery, Birmingham and Nashville to Evansville and East St. Louis. These trains were successfully handled last season, but at a costly price. They will be attempted again this season and began with October 15th. I would like here to file this published schedule Atlanta to Cincinnati and have marked same exhibit 265. In order to show what this movement means in miles per hour I will take the citrus special from Atlant to DeCoursey:

Distance	Schedule	Speed in miles per hr.
480 miles	16 hrs. 31 minutes	24.6

While these figures represent the published schedule, in actual operation there is some difference, as it will be noted that the C. of Ga. is scheduled to arrive in Atlanta at 10:30 A. M. As cars have to be switched by that line to the interchange track at Hulsey Yard a distance of approximately 8 miles, and there given to the Atlanta Joint Terminals and then handled by the Atlanta Joint Terminals to the icing track at Hurt street, iced and trained up for the L. & N., 12:30 P. M. is in reality the earliest hour of departure, instead of 11:59 A. M. as was proven last season. There is an arbitrary of 15 minutes at Etowah, Tenn., where crews are changed, and 20 minutes at Cor-

bin, Kentucky, where both crews and engines are changed. This reduces L. & N. running time to 18 hours, 26 minutes, [fol. 1573] making a necessary speed of 26 miles per hour with this train. This distance of 480 miles is divided:

Double track	186.5 miles,	38.8 per cent
Single track	293.5 "	61.2 per cent

Very little of this is straight track, the railroad traversing the hills of Central and Northern Georgia and the mountains of Eastern Tennessee and Eastern Kentucky. While many millions of dollars have been expended by the Louisville & Nashville Railroad Company in building a modernly equipped railroad from Junta, Georgia. Junta is 40 or 50 miles north of Atlanta. That is where we join with the W. & A. While many millions of dollars have been expended by the Louisville & Nashville Railroad Company in building a modernly equipped railroad from Junta, Ga., to Cincinnati, Ohio, and by the L. & N and N., C. & St. L. Companies in modernizing the 49 miles of joint track owned by the State of Georgia, used jointly by these two lines between Atlanta and Junta, yet there are handicaps other than the 293½ miles of single track. Virtually every mile of the 480 requires heavy maintenance cost, far above the average railroad serving this business. I wish here to enumerate some of the transportation handicaps we suffer in this operation, Atlanta to Cincinnati:

We are compelled to observe 15 city ordinances varying [fol. 1574] in their requirements as to speed from 6 to 30 miles per hour; one stop for railroad crossing at grade; four interlocking plants, 12 to 15 miles per hour; forty restrictions due to physical conditions varying from 10 to 30 miles per hour; the total of these restrictions embracing a distance of 80 miles.

I wish here to file a print of a sketch marked Exhibit 266, showing a 59 mile section of mountain track between West Knoxville, Tenn. and Duff, Tenn., reaching a maximum grade of 1.15 per cent and a curvature of 9 degrees. Please note of this 59 miles there are a total of only 5 full miles of tangent track. I wish also to file here a print of another sketch marked Exhibit 267, showing another piece of mountain railroad from Corbin, Kentucky, to Patio, Kentucky (Winchester) a distance of 76 miles. This track has a better grade but has a maximum curvature of 8½ degrees.

It will be noted that this piece of track has no tangents to speak of in practical operation. And while the whole railroad from Atlanta to Cincinnati is of similar character, I am mentioning these two particular sections, as it requires two locomotives to handle full tonnage rating over these grades. On the last 10 miles shown at the north end of Exhibit 267 (Riverside to Patio) the third engine is required to move the regular tonnage.

Notwithstanding the adverse conditions mentioned, the [fol. 1575] Louisville and Nashville Railroad Company has very successfully delivered this perishable business at De-Coursey, Ky. (Cincinnati) on time, but as stated, there has been a price to pay. In the year 1927-28 the L. & N. had a citrus special schedule of 26 hours, 5 minutes and quickened the time of fast freight trains Nos. 42 and 44 to 28 hours, 20 minutes and 28 hours 30 minutes respectively.

I here file this schedule as published and have marked same Exhibit 268. Again, this present season the L. & N. proposes the schedule of 19 hours, 29 minutes, against 26 hours, 5 minutes in 1927-28. Fast train, 44, has been quickened 3 hours, 30 minutes, in case straggling perishable show up for it. Compare this to 33 hours, the present ordinary freight schedule, and it is plain to be seen that this can be done only at the sacrifice of tonnage and the time and convenience of other trains that may come in contact or conflict with these perishable trains, as all other freight trains are made inferior in operating against them. We even go to the length of keeping local passenger trains out of their way.

This expedited service means a one day earlier market delivery to C. F. A. territory this season as against season 1927-28 1929-30. Thus the interested lines have expedited this movement 24 hours for the benefit of shippers, receivers and consumers of this perishable. The L. & N. Railroad [fol. 1576] has sacrificed to this period of time as shown, 6 hours, 36 minutes of the day gained. It would be a physical impossibility to even approach this fast time in the ordinary movement of freight trains, and it has been made a success only by the strictest preferential handling and by sacrifice of tonnage. To show what this tonnage sacrifice means on the L. & N. R. R. I am giving below a table

of tonnage ratings over the territory involved in this movement.

	Ordinary Freight	Fast Freight	Citrus Special
Atlanta to Junta	2100 tons	1900 tons	1900 tons.
Junta " Etowah	2625 "	2425 " (a)	2425 "
Etowah " Corbin .....(a)	2795 " (a)	2500 " (a)	2500 "
Corbin " DeCoursey .....(b) (c)	6000 " (b)	2075 " (d)	1500 "

(a) 2nd engine W. Knoxville to Duff ..... 59 miles.
(b) 2nd engine Corbin to Patio ..... 76 "
(c) 3rd engine Riverside to Patio ..... 10 "
(d) Single engine Corbin to DeCoursey ..... 180 "

Our engines are lightly rated from Atlanta to Corbin, due to class of freight handled, a distinction of only 200 tons being made between ordinary freight and perishable, but other tonnage for the citrus train is available but little of the tim account ofrestrictions imposed on equipment handled in the citrus trains, which I will show later. So we may pass over this 8 per cent and 10 per cent loss in tonnage Atlanta to Corbin.

There is a different story from Corbin to Cincinnati. [fol. 1577] At Corbin we receive a heavy coal tonnage coming off the Cumberland Valley division, and we handle 6,000 tons of ordinary freight out of that point with a helper engine 76 miles of the way.

I checked these trains from November 1st, 1930, to June 30th, 1931, and found we operated during this period a total of 240 citrus trains, the average tonnage on them being only 1261 tons against rating of 6000 tons of ordinary freight, a loss of 79 per cent. In the same period we operated 763 ordinary freight trains with full tonnage of 6000 tons and two fast freight trains per day with their rate of 3075 tons satisfactorily filled.

In order to present a simple view of this complicated situation at Cincinnati I wish to file here print of a sketch made to show certain points of interchange at Cincinnati. This print is marked Exhibit 269. When these trains arrive in DeCoursey Yard at point marked "Coleman" on the print, car inspectors are withdrawn from other service on repair tracks to prevent delay in the inspection with ordinary forces. The agency forces at the yard also drop all other work in order to card, tag, revise billing, check re-

consignments, check ice bunkers, etc. This freight is not classified by gravity over the "hump" as is ordinary freight, but a special engine is sent to Coleman to meet it and take off train, handle to icing plant, wait for icing and [fol. 1578] inspection, then cars are classified for connections. These moves cost about 1 hour, 30 minutes in average time, and during this time only such other work is done on other trains as may be done without interfering with this perishable. If cars are shopped repairs are made, if practicable during this 1 hour, 30 minutes, without switching cars out of cuts to shop tracks, but if necessary, cars are taken to repair tracks and engine held while repairs are being made. If cars arrive and are shopped at such an hour as repair men are not on duty, they are called as may be necessary and paid at time and one-half. Of course none of this service is given ordinary freight, which must, of necessity, take its turn and in regular routine. All cars moving under standard refrigeration are iced fully at De-Coursey. When work enumerated has been done, if cars have arrived on time—7:30 A. M., the hour of 10 A. M. (Eastern Standard Time) has been reached. The 24 hours faster schedule has naturally increased the work of reconsignment. Cars billed on Cincinnati to hold are segregated and moved to Latonia, a distance of 3.1 miles, and held there for orders. This reconsigning privilege granted shippers proves a hardship to some extent on the L. & N. R. R. at Cincinnati as approximately 15 per cent of the cars arriving there are held for orders and reconsigned. When an order is given for forwarding a "hold" car it has to be [fol. 1579] immediately switched out of hold track, re-iced if necessary and hurried to connection, regardless of anything there may or may not be ready to go along in the movement.

The details of delivery to connection lines at Cincinnati are as follows:

Chesapeake and Ohio Railroad:

We are required to make delivery to the C. & O. Railroad at K. C. Junction by 11 A. M. This is a simple problem compared to other lines, K. C. Junction being only 3.8 miles from Station 26, double track movement. Station 26 is where we start our trucks from. That is shown on Ex-

hibit 269. While the C. & O. handle the cars across the C. & O. bridge the L. & N. pays them $4.90 for this service.

Pennsylvania Railroad:

We are required to make delivery to this line by 11:05 A. M. at Point Isabella, which is shown as "O. A. Tower" at No. 26. We must use 4.8 miles of single track to make this delivery. The engine is under instructions and at the expense of the Pennsylvania R. R. after it passes O. A. Tower. It may be readily seen what it means to the L. & N. R. R. to be compelled to reach this delivery point in so short a space of time.

Baltimore & Ohio Railroad:

We are required to make deliveries to B. & O. at Cincinnati Junction at 11:45 A. M. for their Toledo division. [fol. 1580] The time of engine divides at Carr Street and it is at the cost of the B. & O. after passing Carr Street. The engine moves the Toledo division business to Cincinnati Junction, a distance of .4 of a mile from Carr Street, and to Brighton 2.2 miles from Carr Street for their St. Louis division. Against these distances the L. & N. moves the business 6.2 miles, double track route.

Big Four Railroad:

We are required to deliver this business for the Big Four at Harriet Street at 11 A. M. Harriet Street is 6.8 miles from Station No. 26. Engine is charged to Big Four after it passes Wood Street .7 of a mile north of Harriet Street. Big Four may take the business for their Chicago division at Harriet Street or Riverside, and for their Cincinnati division at either Harriet Street or Sharonville. Double track route.

In order to take care of deliveries to these four connections three separate engines are required. However, when cuts are light and time will permit, we can make the four deliveries with two engines.

I have suggested that if there was any profit to the L. & N. Railroad in the handling of this business Atlanta to Cincinnati it is largely lost at Cincinnati, due to adverse conditions there. In order to reduce this generality to a concrete illustration I caused to be checked the actual per-

[fol. 1581] formance required of our Cincinnati Terminal engines in this work for the months of November, 1930, and June, 1931 (the beginning and the end of the season) and the heavy months of March and April, 1931. The recapitulation of all of this detail shows very clearly the correctness of my belief of disproportionate cost to the L. & N. Railroad at Cincinnati, as I find the special engines used to transfer this citrus fruit to the Pennsylvania carried only an average of 25½ cars of all classes of freight, while the engines transferring ordinary freight carried 29 cars, a loss of 3½ cars per engine or 15.5 per cent.

Big Four transfer engines handled in citrus cuts (trains) an average of 24.7 cars of all classes of freight against 63 cars of ordinary freight, a loss of 35.3 cars per engine or 56 per cent.

B. & O. transfer engines handled in citrus cuts an average of only 13.7 cars of all classes of freight against 48 cars of ordinary freight—a loss of 34.3 cars per engine or 71.4 per cent.

By Big Four and B. & O. transfer engines I mean the engines used in transferring the stuff from the L. & N. to the Big Four and B. & O. When it is on our rails it is at our expense up to the points where I show on the map, and it is subject to our instructions.

In addition to these special engines, as I have before [fol. 1582] shown, one engine carried cuts to both the B. & O. and Big Four. These mixed engines handled only 12.5 cars of all freight in these cuts against 55 cars of ordinary freight, a loss of 42.5 cars per engine or 77.2 per cent.

The C. & O. represents such a small proportion of the business, and being south of the river I have not taken it into consideration.

I might explain here that interchange with connections is based on cars and not tonnage. The term "Cut" refers to a train.

To sum up the situation for the four months period actually checked, the L. & N. actually lost in these transfer cuts the following as compared to ordinary freight:

To Pennsylvania	308 cars
To Big Four	2749 cars
To B. & O.	2157 cars
In cuts mixed to Big Four and B. & O.	1360 cars

Concerning the movement of citrus fruit coming to the Louisville & Nashville Railroad at Montgomery routing through Evansville and East St. Louis gateways. During the season 1927-28 we received this business from the A. C. L. at Montgomery at 6:34 A. M. and forwarded on our No. 74 at 8:30 A. M. The business from the S. A. L. came to us at 10:30 P. M. and was forwarded on our No. 76 at [fol. 1583] 12:15 A. M. The schedule of No. 74, Montgomery to Howell (Evansville) was 31 hours and to East St. Louis 39 hours 30 minutes, from Montgomery. The S. A. L. business handled on train No. 76 was given the same fast movement.

At the beginning of last season the schedule provided for delivery by the S. A. L. to the L. & N. at Montgomery at 7:30 A. M. and the A. C. L. at 11:15 A. M. to depart via L. & N. at 12:15 P. M. The schedule was cut to 30 hours, 45 minutes to East St. Louis and 22 hours 15 minutes to Evansville, thereby shortening same 8 hours, 45 minutes under 1927-28. The same schedules prevail this season. I attach copy of the same marked Exhibit 270. This schedule shows a speed of 20.5 m. p. h., Montgomery to East St. Louis and 20.1 m.p.h., Montgomery to Evansville. However, 20 minutes arbitrary time is allowed at Oakworth for change of crews, 2 hours 15 minutes at Nashville for consolidation of business received from N. C. & St. L. and 1 hour at Howell for switching, icing and changing crews. This reduces running time from Montgomery to East St. Louis to 27 hours, 10 minutes, making speed 22.8 m.p.h. From Montgomery to Evansville running time is reduced to 19 hours, 40 minutes, making speed 23.2 m.p.h.

Montgomery to East St. Louis, 699 miles; divided:

Double track	222.7 miles
Single track	396.3 miles

[fol. 1584] Montgomery to Evansville 458 miles divided:

Double track	217.2 miles
Single track	240.8 miles

We have no published through ordinary freight schedule from Montgomery to East St. Louis or Evansville—only fast freight schedules, and our fastest train, other than the citrus schedule is 24 hours, 15 minutes to Evansville and 31 hours, 40 minutes to East St. Louis. Ordinary freight re-

quires about 32 hours to Evansville and 42 hours to East St. Louis.

Upon receipt of this business at Montgomery it has to be iced and switched for forwarding. Connections do no icing but this burden is placed upon the L. & N., on account of icing facilities being located on their rails. Our train master there estimates it cost him in engine and clerical expense to handle a car of ordinary freight through his yard 73.8 cents, a dry refrigerator loaded with perishable, $1.435 per car, while cars to be iced cost $2.736 per car. This is based on one car cut. The cost is, of course, less when handled in greater numbers. I haven't checked these figures, but I feel sure they are proportionately correct. Other conditions, as to inspection and general preferential handling through Montgomery yard, obtain as at other points, Birmingham included, where we receive a small quantity of this business from the A. B. & C. and Central of Ga. Railroads.

[fol. 1585] On this long run of 619 miles from Montgomery to East St. Louis, we not only have 396 miles of single track but some very difficult operating conditions, due to physical conditions, speed restrictions, and so forth.

I file here print of sketch marked Exhibit 271, showing the character of the line for 40 miles north of Nashville, on which section is located a .9 percent grade and on this grade a slow-order tunnel of nearly a mile in length. This section is rather typical of the entire railroad, except the grade is somewhat heavier than elsewhere, until Henderson, Kentucky, is reached, where a 1 percent grade is encountered over the Ohio River bridge. Farther north, leaving Evansville there is a 1.5 percent grade. Full trains are required to have a helper engine on both of these grades. I file here print of sketch of these two points and have marked the same Exhibit 272.

The speed restrictions in this territory are as follows:

7 City ordinances, speed limits—6 to 25 miles per hour.
6 Interlocking plants speed limits—15 miles per hour.
9 Railroad crossings at grade. Stop.
67 Slow orders on bridges, excessive.
Curvatures, etc., speed limits—6 to 25 miles per hour.
A total restricted territory of 76 miles.

[fol. 1586] On this piece of 619 miles of track, through such a broken territory of mountains and hills, there can be

no uniform engine tonnage rating. These ratings are changed on each division and part of divisions.

Below I am giving ratings in tons from Montgomery to East St. Louis:

	Slow	Fast	Citrus
Montgomery to Birmingham	2000	1900	1700
Birmingham to Decatur	3250	3150	2250
Decatur to Nashville	3100	3100	2500
Nashville to Guthrie	1700	1700	1200
Guthrie to Atkinson	2700	1700	1200
Atkinson to Howell	3000	1700	1200
Howell to Ashley	1625	1625	1250
Ashley to East St. Louis	2660	2660	1250

We do not have many solid trains of citrus from Howell to East St. Louis. It is mixed with other freight. There is a considerable amount of other class of perishables that is handled together with the citrus—livestock and perishables. It is called a citrus train; it handles citrus and such other perishables as may be offered. Up until mid-winter we attempted to handle 1400 tons on the citrus train from Nashville to Guthrie, but found time was being lost with this tonnage. It was accordingly reduced from 1400 to 1200 tons on February 2nd of this year.

[fol. 1587] This movement of citrus fruit from Montgomery to Nashville is joined up at Nashville with that coming to the L. & N. there from the N. C. & St. L. Railway. The N. C. & St. L. make delivery in what is known as Kayne Ave. Yard. The same preferential and expensive handling is given this business there as in other yards except that at Nashville unusual expense is involved by reason of the fact that special transfer engines are required to handle this freight from Kayne Ave. to Maplewood, a distance of 5 miles, and there given the L. & N. trains en route north from their regular yard at Radnor. Ordinary freight would be carried from Kayne Ave. via Mayton to Radnor by regular transfer engines handling full tonnage, and there switched in regular routine. This is an expensive arrangement requiring special engines, special mechanical inspectors and special clerks.

In making deliveries to the C. & E. I. and I. C. Railroads at Evansville, cars under refrigeration are iced fully before delivery and under ordinary conditions the transfer en-

gines are timed so as to handle other freight. However, this is not always possible, and as a consequence thirty special runs had to be made to these connections last season.

This citrus business is handled in refrigerator cars, practically all of which is of F. G. E., W. F. E. and B. R. E. owner-[fol. 1588] ship. The regular rate of 2 cents per mile on both loaded and empty haul is paid by the L. & N. Railroad Company. This railroad, as others, is charged with the responsibility of protecting this fruit against weather conditions, except that moving under refrigeration.

I have got a statement here that I want to put in this record showing how careful our people are with this citrus business. I would like to file this as an exhibit. This is a letter issued by the Superintendent of Transportation to the operating department. That is Exhibit 273. Our superintendent of transportation wrote to all concerned and says:

"The following instructions regarding its makeup and operation will govern:" (That is, citrus trains.)

"Confine tonnage to merchandise, perishable and other elastic freight. Top heavy or other out of proportion cars, loaded hopper cars and double and triple loads, and so forth, will not be handled in this train, or cars equipped with arch bars.

"Train to be main tracked throughout. Any suitable tonnage for the train to be put on en route will ordinarily be placed on head-end with relief loaded engine or yard engine at point like West Knoxville.

"Superintendents to instruct as to tonnage rating for the train over their respective divisions that will admit of [fol. 1589] schedule being made.

"It is desired that this train be given preferential handling and not delayed, in order that schedule may be made without exceeding maximum allowable speed limits.

"Close supervision to be given train by all, a report of perishable and destination to be wired promptly leaving Atlanta as well as gross tonnage in train, the same information as to gross tonnage to be included in report of movement of train from Etowah and Corbin."

Those special instructions were made for the movement through Atlanta and from Atlanta to Cincinnati. We have not enough citrus to run solid trains on the Montgomery route on the St. Louis division, and it is confined to one schedule. Other freight is put in these trains but the same

careful preferential handling is given as is given over on the Atlanta route. On the Atlanta route they are called citrus trains but they are really perishable trains. We call them citrus trains and mark the records that way and keep it on the train sheet that way. If they have one car of citrus in them that makes it a citrus train.

Cross-examination.

By Mr. Eshelman:

We have got some coal trains which we call main trackers from Corbin to DeCoursey. It gets the name from the fact [fol. 1590] that we do not take it in the yard at Corbin. We hold it on the track there. We give coal a fast movement too. I would say that if we made 15 miles an hour average with coal we would be doing well in a 6,000 ton train. We run them up there 180 miles in 10 or 12 hours. Some days we get over the road in good shape, do not have any hot boxes or anything like that. Perhaps we have made it in 9 hours. I have never checked it. We use the same type of power on the coal trains that we use on the citrus train; just more of them. We use a helper engine part of the way on the coal trains and then on another 10 mile stretch we use a third engine on the 6,000 ton coal trains. When we run a citrus train we run a single engine all the way through. We can handle 3,000 tons with a single engine on fast freights. I did not state a figure representing an estimated difference in cost of handling perishable and other freight. I simply showed the loss in tonnage in cars. The Train Master had worked out the cost of handling these perishables through Montgomery Yard by a special movement. I have not checked his figures but I am sure from my general knowledge that he has it proportionately right. It costs twice as much to handle this perishable movement. He showed it for an ordinary car of dead freight and he showed it for a citrus car that was dry, that did not require reicing, and he also showed it for iced cars. He showed ordi- [fol. 1591] nary freight 73.8 cents per car. He was taking a single dry refrigerator car loaded with perishables and the cost was $1.435, and a car that had to be switched to the ice run and engine held while icing $2.736. That was a single car. That is the total expense, clerical, engine expense and mechanical. The mechanical expense was in there because there are special inspectors who are required

to go there. We do icing at Montgomery. The connections do not ice. We do the icing for them. The facilities are on the L. & N. tracks. We do not have a great volume of that kind of business there. It is done every day, though, but in fairly small volume. I do not know what was included by the Train Master in these figures. I just took his figures. He figured it out. This report includes out-of-pocket expense; that is, simply engine hours, mechanical and clerical. He gave it a good deal of thought and that is the information he gave me that it cost him about that. I know it costs two or two and a half times as much to handle a perishable car. Of course, it varies in different yards and under different conditions. It takes a great deal more time in one yard than it does in another. I do not claim that this would be representative of other yards.

I would say that the difference in the expense for perishables as compared with other freight would be twice as much according to his study, because it requires preferen-[fol. 1592] tial handlin[illegible]verything else has to be dropped. In lots of inst[illegible]ces it requires more help. We might have to call out a special engine to handle it. In other words, if you have all your engines at work which you are supposed to do if you watch your operating expenses, and a lot of perishables show up, you can not do it. If we called a crew for a small additional job we would leave them on duty for the full time. We get all out of them that we could. They might then be used part of the time on other freight. Our regular set-up does not contemplate having engines for perishables as well as our slow freight but at Cincinnati where we have our greatest yard expense it is a very erratic business. One day very little shows up. The next day we will get notice that there are twenty-five cars coming and we call a special engine to meet that. Montgomery is a good deal later. I would say about half the business comes through there.

Mr. Northcutt: We offer in evidence Exhibits 264 to 273, both inclusive.

[fol. 1593] E. M. WRENNE, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am E. M. Wrenne, Superintendent of Transportation, The Nashville, Chattanooga & St. Louis Railway, which

position I have held since 1915. Prior to that time I was Assistant Superintendent of Transportation, Assistant Division Superintendent, and occupied minor positions in the Transportation Department of the same line, my employment covering a period of forty-one years.

The character of the territory through which the N. C. & St. L. operates is very hilly and mountainous. The N. C. & St. L. handles as an intermediate carrier a very considerable volume of Florida citrus fruit to C. F. A. territory. I could not approximate the number of cars that our company handles a year with any degree of accuracy.

Florida citrus fruit and other perishables require fourth morning delivery at Chicago from points of origin and corresponding service is demanded of carrers by other markets in the C. F. A. territory.

The Nashville, Chattanooga & St. Louis Railway, operating a line from Atlanta, Georgia, to Nashville, Tenn., where connection is established with the Louisville & Nashville Railroad, and thence to Martin, Tenn., where connection is made with the Illinois Central Railroad, forms a part [fol. 1594] of a very important competitive route for this traffic. The distance from Atlanta, Georgia, to Nashville, Tenn., is 288 miles and the distance from Atlanta, Georgia, to Martin, Tenn., is 429 miles.

A map of the Nashville, Chattanooga & St. Louis Railway and connections, the line from Atlanta, Georgia, to Martin, Tenn., representing part of three operating divisions, which is traced in red, is submitted as Exhibit 274 and a print showing condensed profile and ruling grades of the three operating divisions over which the business is handled is submitted as Exhibit 275.

The Nashville, Chattanooga & St. Louis Railway receives Florida perishables from the following connections at Atlanta:

Central of Georgia.
Atlanta, Birmingham & Coast.
Georgia Railroad.
Southern Railway.
Seaboard Air Line.

Our schedules from Atlanta during the season 1930-1931, which were established and maintained for the purpose of expediting the movement of Florida fruits and vegetables delivered by Atlanta connections, together with the sched-

ules in effect for the 1927-1928 perishables season, are filed as Exhibit 276.

[fol. 1595] The distances from Jacksonville to Chicago via various competitive routes are shown in Exhibit 277. The mileage from Jacksonville to Chicago via ACL, C of Ga., N. C. & St. L. and IC, is 47 miles greater than the next longer route, and 117 miles greater than the shortest route.

Fast freight schedules have been especially arranged for Florida perishables, our trains being operated at maximum speeds allowable on this company's lines. Connections could not be maintained by the operation of ordinary freight service, and except for our expedited service the N. C. & St. L. Railway route would be unable to successfully compete for Florida perishable traffic because of its longer route, and which handicap can only be overcome by trains operated at high speed.

Our train No. 54, designated as "Florida Express—Perishable Freight", represents the fastest freight schedule operated on the Nashville, Chattanooga & St. Louis Railway. Special handling by the Transportation Department is required in our efforts to obtain a regular and satisfactory performance of this train, which is operated daily at high speed regardless of the number of cars of perishables. The same handling of No. 54 is required for one car of this particular traffic as for fifty.

While it is a fact that in some instances sufficient ton-
[fol. 1596] nage of another character may be available to fill out on our perishable trains, we can not hold back same at terminals expecting to use it as fill out, because of the fluctuations in the movement of perishable traffic. Again our trains handling Florida perishables can not be loaded to full engine rating capacity with various and sundry tonnage.

Furthermore, the importance of train 54 is such that reduction in tonnage rating is necessary in order that the schedule may be uniformly maintained and connections to the C. F. A. territory regularly made. The schedule of No. 54 with its connections at Nashville and Martin appear in Exhibit 278. The schedules of competitive lines are shown in Exhibit 279.

Diversions involving Florida perishables are not uncommon. The execution of these diversion orders at the various terminals on the lines of the N. C. & St. L. Railway

sometimes results in delay to fast freight schedules and in all instances causes additional switching, clerical expense, etc.

Perishable shippers and receivers demand that they be kept fully advised as to the movement of their consignments. This necessitates the compilation of passing records and other especially prepared reports which must be daily sent to representatives of this railway and agents [fol. 1597] of the shippers. The preparation of this data involves considerable expense which is entirely borne by our line.

Florida fruits and vegetables are handled in refrigerator equipment and this company pays the usual mileage rate. In order to provide cars for loading at shipping points it becomes necessary for us to handle empty refrigerators in southbound trains for delivery to connections at Atlanta. These empty refrigerators are handled a distance of approximately 429 miles. The preponderance of traffic on lines of the N. C. & St. L. is southbound and since southbound trains are handling important business to the Southeast with full rating for the power assigned, the movement of these empty refrigerator cars in that direction, therefore, necessitates the operation of additional trains. The Nashville, Chattanooga & St. Louis Railway pays to the Fruit Growers Express Company approximately $20,000 per month for mileage on the equipment of the F. G. E. Company.

The expense of providing suitable equipment for northbound perishables, reduction in tonnage rating for perishable trains, the operation of high speed schedules to compete for the traffic, the employment of additional switch engines, clerical and supervisory forces in our terminals, the execution of diversion order, etc. do not by any means reflect all of the extra expense incident to the transportation service for this business.

[fol. 1598] The operating difficulties on the N. C. & St. L. Railway can best be appreciated by a description of its line from Atlanta, Georgia to Martin, Tenn., that being the western point at which we deliver this traffic to connections.

Atlanta Division

This is a single track line from Bolton, Georgia, to Chattanooga, Tenn., a distance of 129 miles, there being 6.59

miles of double track between Atlanta and Bolton, over which trains are operated by train orders in conjunction with automatic block system. It is a rather unusual stretch of track in that 51 per cent of the total mileage is represented by curves, leaving 49 per cent on tangent. There are more than 300 curves on this division, the maximum of which is 6 degrees. Many of these curves reverse on point. There are 98.10 degree 8 minutes of curvature, or a total of 27 complete circles.

Between Atlanta, Georgia and Junta, Georgia, a distance of 48 miles, 83 per cent of this mileage is represented by curves, while only 17 per cent is straight track. Profile of the Atlanta Division, marked Exhibit 280, shows all curves and grades in detail.

There is a total of 183 grade crossings on this division.

There is a total of 44 bridges and trestles, 33 of which [fol. 1599] are between Kingston, Georgia, and Chattanooga, Tenn., a distance of 78 miles. There are 11 stations between Atlanta, Georgia and Chattanooga, Tenn., in which city ordinances require that speed of trains be reduced through corporate limits. These restrictions range from 6 miles per hour to 15 miles per hour.

The maximum permissible speed for freight trains under our speed regulations over this division is 40 miles per hour.

The slowing down of trains through incorporated towns and the number of public highway grade crossings, together with the number of bridges and trestles encountered, make it extremely difficult to maintain the schedules of fast freight trains, particularly in view of the maximum allowable speed of 40 miles per hour, which physical conditions have forced us to establish.

Between Atlanta, Georgia and Junta, Georgia, a distance of 48 miles, we handle trains of the Louisville & Nashville Railroad from two of its divisions, one division being its Atlanta-Louisville-Cincinnati main line which taps the Atlanta Division at Junta, Georgia, their other division tapping at Marietta, Georgia, in addition to those of the N. C. & St. L., under a trackage agreement between the two companies.

[fol. 1600] The single track line between Atlanta, Georgia, and Junta, Georgia, is doubtless one of the most congested pieces of single track railroad in the country. Between

these two points there is operated in each direction daily ten scheduled passenger trains of the N. C. & St. L. Railway and L. & N. Railroad, making a total of 20 passenger trains daily. There is also handled over this stretch of track 10 scheduled freight trains of the N. C. & St. L. in addition to the freight trains of the L. & N., which trains are operated as extras. During the perishable shipping season the number of freight trains of both lines is materially increased. That is partly due to the necessity of operating trains at reduced tonnage in order to take cars of these perishables. The reduction is necessary in order to feed up as far as we can the movement of the trains through that very congested territory. If we dragged them with heavy loading I do not think we could operate the railroad.

The interruptions and delays resulting from opposing train movements made it difficult to keep northbound freight trains handling perishable on schedule. A copy of a dispatcher train sheet for a busy day over the tracks between Atlanta, Georgia, and Junta, Georgia, is filed as Exhibit 281 and picturizes the difficulty in getting trains over this stretch of track.

You will note that photographic copy indicates on that [fol. 1601] particular day there was operated 27 passenger trains and 30 freight trains, or a total of 57 trains in a 24 hour period there.

A copy of current time table is filed as Exhibit 282.

The tonnage rating between Atlanta and Chattanooga for our heaviest freight power handling ordinary freight trains is 2650 tons, but in order to maintain northbound perishable schedules, as in the case of No. 54, we have found it necessary to reduce engine rating to 2200 tons.

At our Hills Park Yard, Atlanta, where deliveries from Southeastern connections are received, we consume the best part of two hours making up northbound perishable trains. Cars for connections at Chattanooga, Tenn., Martin, Tenn., Nashville, Tenn. and other terminals are switched in junction order. At certain seasons perishable traffic must be iced in this yard. The proper classification, icing, etc. causes this company to incur additional switch engine hours and extra expense.

Chattanooga Terminals

Perishable cars routing N. C. & St. L-Atlanta-Chattanooga and Southern Railway are delivered to the latter line in their Citico Yards at Chattanooga. The distance from our freight yards to those of the Southern Railway (Citico) is approximately two and one-half miles, and in [fol. 1602] order to make these movements we must operate through an interlocking plant and over a part of the Southern Railway main track, ordinariy requiring one hour, but during the winter movement of perishables frequently runs up to two hours.

Chattanooga Division

This division extends from Chattanooga, Tenn., to Nashville, Tenn., a distance of 151 miles, all of which is single track, with the exception of 39 miles between Chattanooga, Tenn. and Stevenson, Alabama and five miles between Glencliff, Tenn. and Nashville, Tenn. Trains are operated by train order in connection with automatic block signals.

The Southern Railway uses that part of the Chattanooga Division between Wauhatchie, Tenn. and Stevenson, Alabama, a distance of 32½ miles. Current time-table of the Chattanooga Division indicating scheduled passenger and freight trains of the N. C. & St. L. and passenger trains of the Southern Railway but not their freight trains, they being operated as extras or sections of N. C. & St. L. freight trains, is herewith filed as Exhibit 283.

Review of this time-table will show to some extent the difficulties northbound freight trains encounter as a result of opposing passenger trains and important southbound freight schedules.

The line, after leaving Chattanooga, climbs from the [fol. 1603] Tennessee River bottom three hundred (300) feet six (6) miles to surmount Raccoon Mountain, descends again to the Tennessee River bottom to cross the Tennessee River at Bridgeport, passes through the rolling country of north Alabama and enters Crow Creek Valley, which it follows to Sherwood, where the five hundred (500) foot climb to the tunnel through Cumberland Mountain begins. After passing through the tunnel, the line descends to the undulating tableland at elevation about 1050, which extends to Tullahoma, where the line drops off into and crosses

Duck River Valley about two hundred and fifty (250) feet below Tullahoma. From this point to Nashville the country is badly broken up by the cross drainage of Duck River and Stones River and their tributaries, producing in profile a series of saw teeth. See Exhibit 275.

Just out of Chattanooga, the line passes between Lookout Mountain and the Tennessee River with the vertical wall of the lower terrace of the mountain overhanging the track and presenting a constant menace to safety from falling rocks and boulders so that watchmen have to be employed to patrol this stretch of track at all times. A similar condition obtains where the line passes between the north end of Sand Mountain and the River, where the lower bluffs rise three hundred feet almost vertically above the track. Numerous deep rock cuts on the Cumberland Mountain grade are equally menacing and all of these [fol. 1604] places have to be carefully watched and considerable labor has to be expended in removing loose rocks and boulders that are liable to roll down on the track. On Raccoon Mountain, there are many slides, both above and below the track, all of which requires constant attention and the expenditure of much labor and material to keep the line open for traffic. At many places on Raccoon Mountain and around the narrows between the north end of Sand Mountain and the Tennessee River, it is necessary to maintain slow boards, reducing the speed of all trains to insure the safety of operation.

The ruling grade on Raccoon Mountain from Wauhatchie, Tenn. to Summit, Tenn. is 1.2 per cent while the grade on Cumberland Mountain from Sherwood to Rockledge, Tenn. is 2½ per cent.

1847 feet north of Rockledge, near the summit of grade, we operate through a single track tunnel in Cumberland Mountain, 2217 feet long.

The northbound tonnage rating for freight trains drawn by our largest power between Chattanooga and Nashville is 850 tons, but in order to maintain the schedules of fast perishable trains we have found it necessary to reduce this rating 100 tons. Same class of engine has rating of 2650 tons in ordinary freight service on the Atlanta Division and 2200 tons in fast freight service, such as No. 54. [fol. 1605] I mean with our engines which we ordinarily rate at 2650 tons on our Atlanta Division that on this line

I am now describing in connection with the fast perishable trains we reduce our tonnage to 750. On Cumberland Mountain between Sherwood, Tenn., and Cowan, Tenn. helper service is necessary, Mallet compound locomotives being used in pushing trains over this steep mountainous grade. Expense of operating and maintaining Mallet locomotives is considerably greater than the same expense incurred in connection with the operation of our largest power used in road service.

The tractive effort of our largest Mikado type locomotives equipped with boosters is 65,800 lbs. These engines without the boosters have a tractive effort of 54,800 lbs. The tractive effort of Mallet compound engines used in helper service referred to is 99,000 lbs.

Between Chattanooga, Tenn., and Nashville, Tenn., we have city ordinances at five points, the speed restrictions covered by these ordinances varying from 4 miles per hour to 25 miles per hour.

In the vicinity of Bridgeport, Alabama, this line crosses the Tennessee River and trains are restricted to 20 miles per hour over the two bridges, one a drawbridge, the combined length of the two, which are separated by an embankment 1,550 feet in length, being 2,118 feet, the two bridges being in effect a gauntlet in a segment of double track.

[fol. 1606] In the vicinity of Murfreesboro, Tenn., we cross Stones River and the speed over this bridge is restricted to 20 miles per hour.

There is a total of 59 bridges and trestles between Chattanooga and Nashville.

There is a total of 96 highway grade crossings on this division.

These items are mentioned for the purpose of indicating the number of places where trains must slow down to meet various requirements.

The highway- through Middle Tennessee are literally cluttered up with automobile traffic. Trains must carefully approach many grade crossings for the purpose of protecting life and property.

The permissible maximum speed for freight trains on this division is 40 miles per hour.

The schedule of Florida perishable train from Chattanooga to Nashville, a distance of 151 miles, is 5 hours, 40 minutes, an average speed of 26.5 miles per hour.

Weather conditions during the winter months further add to our difficulties in connection with the expeditious handling of perishable trains.

There are times when zero weather is encountered as trains proceed north towards Nashville and Martin.

[fol. 1607] Freezing temperatures are, of course, common throughout the winter months in this section and that condition makes it necessary to adjust ventilating devices on cars at Chattanooga, Nashville and other points. The expense of manipulating the ventilating devices on cars for the protection of citrus fruits and vegetables is considerable and the time consumed in performing this service on a 50 car train is an important item for which we can not provide special terminal arbitraries on account of the minimum time demanded for the movement of the traffic from Florida to consuming markets.

Exhibit 284 is a blueprint of profile and alignment of the road between Chattanooga and Nashville.

At Nashville we deliver traffic to the L. & N. Railroad for movement to markets in the C. F. A. territory.

Our receiving tracks in the yards of the Nashville Terminals will only chamber 43 cars, which necessitates doubling over into other tracks with practically every train. This consumes additional time and results in extraordinary expense of final terminal delay, etc.

Nashville Division.

That part of this division over which Florida perishables for Chicago, St. Louis and other markets are handled, extends from Nashville, Tenn., to Martin, Tenn., a distance of 141 miles, all single track over which trains are operated [fol. 1608] by train order. There is no automatic block system between Nashville and Martin, as is the case between Atlanta and Nashville. A Copy of the Nashville Division time-table is filed as Exhibit 285.

Exhibit 286 is profile and alignment between Nashville, Tenn., and Martin, Tenn.

An examination of condensed profile, Exhibit 275, will indicate that several difficult grades varying from 1.41 per cent to 1.88 per cent are encountered between Nashville, Tenn., and McEwen, Tenn., a distance of 57 miles. Leaving Nashville we negotiate a grade of 1.41 per cent, between

Nashville and Vaughns Gap, Tenn., 1.59 per cent grade, between Kingston Springs and White Bluff, Tenn.; 1.88 per cent between Burns, Tenn., and Colesburg, Tenn.; 1.5 per cent grade, between Dickson, Tenn., and Pond, Tenn., and 1.52 per cent grade between Tennessee City, Tenn., and McEwen, Tenn.

Northbound tonnage rating for our largest power operating over the Nashville Division is 1,375 tons for non-booster locomotives and 1,625 tons for booster equipped engines. We have found it necessary to reduce tonnage rating of engines handling Florida perishable traffic to 1,250 tons in order to maintain these fast schedules. Same class of power on Atlanta Division hauls 2,650 tons in ordinary freight service and 2,200 tons in fast freight service.

There is a total of 66 grade crossings on this division and [fol. 1609] a total of 86 bridges and trestles between Nashville and Martin.

At Johnsonville, Tenn., this line crosses the Tennessee River over which bridge trains are restricted to speed of 20 miles per hour. Bridge, which is of the draw type, is 1,433 feet in length.

The maximum permissible speed for freight trains between Nashville and Martin is 35 miles per hour.

The slowing down of trains through several incorporated towns, for public highway crossings, bridges, trestles, etc., that are encountered between Nashville and Martin makes it very difficult to maintain schedules of fast freight trains such as are employed in handling Florida perishables.

At Martin, Tenn., we deliver business to the Illinois Central Railroad for movement via that line to St. Louis, Chicago and other markets in the C. F. A. territory.

Mr. Gwathmey: We offer in evidence Exhibits 274 to 286.

Cross-examination.

By Mr. Eshelman:

Our preponderance of movement is southbound. For practically six months of the year we have a surplus of power going north until the heavy northbound movement turns around; then it is balanced. The surplus will run from about the middle of the summer or late summer until [fol. 1610] after the citrus movement is taken care of. At

the time the citrus fruit is moving it is beginning to go the other way and we get practically an equalized tonnage then. I was referring to freight movements; not passenger movements.

The small figures at the bottom of the columns on my exhibit 231 indicate the tonnage. The (p) stands for perishable and indicates the number of cars in the train of perishables. Under the gross tonnage column the first figure indicates loads. The tonnages are adjusted to some extent with respect to long trains to take care of curvature. We handle that proposition by bulletin instructions.

R. A. WILLIAMS, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am R. A. Williams, Train Master, Macon, Dublin & Savannah Railroad Company. For ten years I have been handling the duties of Superintendent of Transportation, eleven years as operator, dispatcher and chief dispatcher.

I am generally familiar with the movement of citrus fruits and other Florida originated perishables routed in connection with our line and destined to points in Central [fol. 1611] Freight Association territory, including the various transportation features involved in connection with their expeditious movement. The Macon, Dublin & Savannah participates in the handling of Florida citrus fruit when moving from Florida to destinations north of the Ohio River. We handle approximately 4,000 cars in a season. I can not tell you how much of that goes to C. F. A. territory but the majority of it, I would say.

I have prepared a map or outline of our road showing the route over which the traffic moves and I offer it as an exhibit.

The traffic received from the Seaboard Ail Line Railway at Vidalia, Georgia, is handled to Macon, Georgia, a distance of 92 miles, and at the latter point is delivered to the Central of Georgia or Southern Railway for further movement. This perishable traffic is not moved over our line in ordinary freight trains but special or expedited train schedules are provided. We do not handle this perishable

traffic in our regular freight train service for the reason that in order to make market connections at Macon special and expedited service is necessary.

The line of the Macon, Dublin & Savannah Railway extends from Macon, Georgia, to Vidalia, Georgia, a distance of 92 miles.

By "expedited" service is meant an especially arranged [fol. 1612] service on a faster schedule than is in effect or is required, or necessary, for handling of other traffic. Further, and in order to make such schedule and the connections at Macon for which such special service is run, it is necessary to operate at from 75 to 80 per cent of engine rating and to further favor it through subordinating other traffic and train service, that being necessary in order to make certain market train connections at Macon that are arbitrary and which train connections could not otherwise be made except for special and expedited train service. There is in effect a zero hour for acceptance of perishable traffic by connections at Macon for the making of certain market day deliveries at various destinations. Receiving the traffic from the Seaboard Air Line Railway at Vidalia on time and failing to deliver by or prior to zero hour places responsibility for claim, if a claim be involved, with the Macon, Dublin & Savannah Railroad.

During the 1930-31 season we provided for and operated such a special schedule for protection of the movement of citrus fruit and other perishables. There was a scheduled receipt from Seaboard Air Line Railway, Vidalia, Georgia, 11:30 P. M., leaving Vidalia 12:01 A. M., arriving Macon 4:30 A. M., delivery to Southern Railway at 5:15 A. M. and to Central of Georgia Railway at 6:00 A. M. At Vidalia, following receipt from Seaboard Air Line Railway 31 minutes are allowed for inspection of cars, classification [fol. 1613] and dispatch of train. At Macon 45 minutes are allowed for delivery to Southern Railway and one hour and thirty minutes to Central of Georgia. The reason for this difference in time is that from the train yard, the point at which the train is broken up, it is approximately one and one half miles to point of connection with Southern Railway. After such delivery is made, engine returns to train yard, a movement of one and one half miles, gets cars for Central of Georgia, makes a move of two and one half miles or a total of four miles, and effects delivery to Central of

Georgia. The Macon, Dublin & Savannah Railroad operated its service 1930-31 one hour faster than in 1927-28. The length of our haul is 92 miles. In order to maintain such fast perishable schedule we have found it necessary to make a reduction in train loads as compared with tonnage handled in our regular freight trains to the extent of approximately twenty-five per cent. The extra expense in the curtailment of the train load of these special and expedited trains is the loss of approximately twenty-five per cent of the tonnage otherwise to have been handled and the necessity for operation of additional service.

I have prepared exhibits that will show the receipt of citrus and other Florida perishables from Seaboard Air Line Railway at Vidalia and disposition made thereof that will show the receipts by days and the deliveries by days, [fol. 1614] thereby indicating the wide fluctuations that occur in the movement. At this time I offer two such exhibits, one covering the daily receipts from Seaboard Air Line Railway at Vidalia, Georgia, and the other the daily deliveries to Central of Georgia and Southern Railway at Macon, Georgia.

I may state the Macon, Dublin & Savannah Railroad to a very considerable extent, is an intermediate or bridge line as between the Seaboard Air Line on its east end, and Central of Georgia and Southern Railway on its west end. There is very little traffic that originates at Vidalia proper. When the Seaboard Air Line Railway in making its deliveries at Vidalia, Georgia, 11:30 P. M., deliver but a few cars of Florida citrus and other perishables and but a few cars of other through non-perishable traffic, it is very often the case, such train is operated much under tonnage rating of engine. For example, while under normal operating conditions, this train would be operated at 75 per cent of engine rating, it may, under such referred to conditions, be operated with but 50 per cent or even less, of its engine rating. What I mean to say is that under normal conditions, and in order to effect deliveries at Macon in time to connect up with market trains, twenty-five per cent of engine rating is sacrificed for speed and celerity of movement; by reason of fluctuating flow of traffic, at times a further loss of twenty-five per cent of normal operation sustained [fol. 1615] as a result of having to operate on time and in order to make the deliveries to connections at Macon. When

this perishable train is operated from Vidalia light of tonnage if there be traffic at Vidalia for stations intermediate Vidalia to Macon, or traffic at intermediate stations for movement, this train can not be stopped at such intermediate stations to set off and/or to pick up traffic, and the train gotten to Macon in time to effect its proper connection.

When we receive from the Seaboard Air Line and other connections at Vidalia, other traffic and at other hours within a twenty-four hour period, the majority of such traffic is destined to Macon and beyond. However, there is some that is destined to intermediate points, Vidalia to Macon. As a result of the fast time of the perishable train, and including the set off at and pick up from intermediate stations, we are compelled to operate an additional train, and which service is operated to connect up with the flow of traffic from our connections at Vidalia. For the purpose of clarity, I might express the situation in this way; if it were not for the fast time, restricted tonnage as a result of speed, we could, and would very often take care of the flow of traffic on one train.

In the operation of trains handling Florida citrus fruit and other perishables, it is our practice to give these trains [fol. 1616] preferred attention; not alone preferred attention, but further to the extent of subordinating other traffic as may be required in order to hold schedule. The line over which our perishable trains operate is all single track.

I offer as an exhibit a profile of our grade line. Extending from approximately 87 to 85 mile post, two miles, there is a grade of approximately one per cent. From the 67 to 65 mile post, and with a four degree curvature, a grade of one per cent. From the 27.5 to 25 mile post, and with a four degree curvature, a grade of approximately one and one half per cent.

Through the city of Dublin and for a distance of approximately one and one half miles, a speed restriction to six miles per hour; also, and in addition, requirement to flag three street crossings. Four other towns through which we run, we are required to observe speed restrictions of variously 8 to 10 miles per hour. Through a contract with another line, we use jointly their bridge across the Oconee River, near Dublin, with a speed restriction of 6 miles per hour, such distance approximately three-fourths of a mile and plus other requirements in connection with such use

contributes an average detention of approximately twenty minutes to each train. In the terminal handling of this perishable business, we give it preference over other freight movements in order to insure the making of market connec- [fol. 1617] tions. As I have already stated, our terminal time at Vidalia is 31 minutes—in Macon 45 minutes in effecting delivery to the Southern Railway and one hour thirty minutes in effecting delivery to Central of Georgia. No margin of time is allowed at either initial or final terminal for unusual situations arising, and which situations do arise from time to time. For example, hot boxes and minor defects develop in road movement. Insofar as possible, we anticipate such developments and force is on hand and every effort is made to condition and effect delivery of cars.

In making up trains at Vidalia, we undertake to separate citrus or other perishables from cars containing other freight. This for the purpose of facilitating delivery of cars to the respective connections at Macon.

The Macon, Dublin & Savannah runs through a country that is not heavily populated. There is nothing especially heavy about our traffic densities. We do not operate through any towns over 10,000 population.

Mr. Gwathmey: We offer in evidence Exhibits 287 to 290, both inclusive.

Cross-examination.

By Mr. Eshelman:

I would say the Macon, Dublin & Savannah is a subsidiary of the Seaboard. We have two through freights scheduled [fol. 1618] and one local daily. The local goes through from Vidalia to Macon. Those are regularly scheduled trains. Our dead freight through train usually operates up to its tonnage rating. Usually it has the tonnage as scheduled. We do absolutely no local work with the perishable train at all. Whether we fill out our perishable train with dead freight when we can do so, without delaying our schedule, depends on how it arrives at Vidalia. Should it arrive in this perishable train that we are waiting on we probably could fill it out. We do get other freight from the Seaboard than perishables. When I said that we cut our perishables train twenty-five per cent, that means under our dead

freight rating. That has always been our practice, to handle this perishable train at a lower rating than the dead freight.

GEORGE W. LAMB, was recalled and further testified as follows:

Examined by Mr. Gwathmey:

I wish to submit some comments about the Exhibits introduced by Mr. Hodkinson commencing with No. 211 and ending with 225.

I may say in the beginning that practically all of Mr. [fol. 1619] Hodkinson's exhibits are prepared to show information for the Eastern District (including the Pocahontas Region) and the Southern Region.

If this were a general rate investigation perhaps these statistics might have some bearing on the case, but here we are dealing with the division of rates on citrus fruit originating in Florida destined to Eastern and New England territories.

As shown by the records, this citrus fruit traffic in Florida originates on four Southern roads. No other roads in the Southern Region excepting those named in my exhibits are involved in the handling of citrus fruit traffic to Eastern destinations.

The records also show that practically 98 per cent of the citrus fruit traffic from Florida to Eastern destinations is delivered on seven East roads.

Therefore it follows that the statistics of the carriers involved are those which should be considered in fixing divisions on revenues derived from this citrus fruit traffic, and only of those handling the traffic. The inclusion of other roads has no bearing whatever upon the complaint as originally filed and only tends to "muddy the waters".

In presenting our case I dealt with the complaint as originally instituted, namely: the movement of Florida cit- [fol. 1620] rus fruit traffic to Eastern and New England destinations through the Potomac Yards Gateway.

As to movements to C. F. A. territory, different roads and different routes are involved and will be covered by other exhibits dealing with the carriers which handle that traffic.

I will now take up Mr. Hodkinson's exhibits in the order as filed by him:

Exhibit No. 211. This is a statement showing rail mileage for the Eastern District and Southern Region. No comment is necessary relative to single or first track mileage, nor for second track mileage, excepting that for the Eastern District there is apparently a typographical error for the year 1914, which shows "7,911" miles. This apparently should be 17,311 miles.

In connection with third and fourth track mileage, attention is drawn to the fact that in 1911 the Southern Region had only 26 miles of this track, whereas the Eastern District had 2,189 miles. The total increase in third track mileage for the Southern Region from 1911 to 1929, inclusive, was only 66 miles, which shows a percentage increase over 1911 of 253.8 per cent. This, of course, is explained by the fact that with the small divisor of 26, any increase expressed in percentage distorts the comparison.

The same is relatively true in connection with fourth and [fol. 1621] industrial tracks. Of this track the Southern Region had only 89 miles in 1911, and up to and including 1929 the increase over 1911 was 238 miles; expressed in percentages, 267.4 per cent. So that while it is true the Southern Region increased, when expressed in percentages, much more than did the Eastern District, in actual miles the increase in the Southern Region as compared with the Eastern District was 66 for the Southern Region and 589 for the Eastern District for third track. The Southern Region increase being 11.2 per cent of the Eastern District and the Eastern District being 892.42 per cent of the Southern Region.

Exhibit No. 212 is a statement showing population by states. While in the citrus fruit divisions case we are dealing with the states through which this traffic passes, Mr. Hodkinson has added for the Southern states, Alabama, Kentucky, Mississippi and Tennessee, while On Exhibit No. 81 I used the states through which this traffic moves, namely: Florida, South Carolina, Georgia, North Carolina and Virginia, Mr. Hodkinson has also taken Virginia out of the Southern group and thrown it into the Eastern group.

Even with the inclusion of the states not involved in the citrus fruit movement to the East and the switching of Vir-

ginia to the Eastern group, with the exception of 1880 and 1870 the Eastern group of states shows a greater increase in population in each decade than does the Southern group, [fol. 1622] 1930 over 1890 showing 67.78 per cent increase for the Southern states compared with 91.44 per cent for Eastern states.

Exhibit 213. Mr. Hodkinson has again included Alabama, Kentucky, Mississippi and Tennessee in his comparisons. Even with the grouping as shown by Mr. Hodkinson the statement still supports our contention of the greater increase in the East than in the South.

For example, in 1890 the population per mile of road for the Southern group of states as shown by Mr. Hodkinson was 489.5 while in 1930 the population per mile of road was only 492.2. For the same period in 1890 the Eastern group of states showed the population per mile of road as 590.6 and in 1930, 829.8, the increase of 1930 over 1890 for the Eastern group of states being 56.38 per cent, while the increase for the Southern group of states was only 55/100 of one per cent.

Making the comparison on another basis and showing the figures as used by Mr. Hodkinson, the following results are indicated:

		Ratio of Eastern States to Southern States
	1890	108.40 per cent.
	1900	119.73 " "
	1910	144.66 " "
[fol. 1623]	1920	162.33 " "
	1930	168.59 " "

If we eliminate from the Southern states the figures shown for Alabama, Kentucky, Mississippi and Tennessee, leaving Virginia in the Eastern states, the percentages would be as follows:

	Ratio of Eastern States to Southern States
1890	129.50 per cent.
1900	145.97 " "
1910	170.12 " "
1920	187.90 " "
1930	191.40 " "

It would therefore appear from Mr. Hodkinson's own exhibit that there has been a substantial increase in population per mile of railroad in a much greater ratio in the

Eastern group of states than in the Southern group of states.

Exhibit No. 214. Again Mr. Hodkinson makes his comparisons between the Eastern District (including the Pocahontas Region) and the Southern Region. In Docket 24069 this does not mean a thing, as the territory and railroads handling this traffic are the only ones affording a true picture.

It is true that the miles of main track have increased in a greater ratio in the Southern Region than in the Eastern [fol. 1624] District, compared with 1911.

It will be noted in the last column that the percentage of increase over 1911 shown for the Southern Region, tons one mile per mile of road, has rapidly decreased since 1926, from 105.46 per cent in 1926 to 80.93 per cent in 1929, while the tons one mile per mile of road percentage increase over 1911 for the Eastern District remained fairly constant, being 56.79 per cent in 1926, 48.33 per cent in 1927, 46.06 per cent in 1928 and 51.73 per cent in 1929.

Using the figures on Mr. Hodkinson's Exhibit No. 214, it is still shown that the density of traffic as reflected by tons one mile per mile of road in the Eastern District are approximately two and one half to three times the tons one mile per mile of road in the Southern Region.

Regardless of the relative increase in miles of track in the Southern Region as compared with the Eastern District, the figures shown on Mr. Hodkinson's Exhibit No. 214 clearly demonstrate the tremendous advantage of the Eastern District over the Southern Region in the density of traffic as measured by the tons one mile per mile of road. Using Mr. Hodkinson's figures, the following tabulation shows the ratio of the Eastern District to the Southern Region of tons one mile per mile of road:

	Ratio of Eastern States to Southern States
1911	303.93 per cent.
1914	297.93 " "
[fol. 1625] 1915	315.36 " "
1916	316.13 " "
1926	231.95 " "
1927	233.35 " "
1928	242.93 " "
1929	254.88 " "

It will be noted that from 1926 to 1929 the ratio shows a constant increase.

At page 1126 of the transcript of the record, in commenting on my exhibit no. 82, Mr. Hodkinson states that he does not understand that Statement No. 28015, issued by the Interstate Commerce Commission in 1928, based on replies to order of the Commission dated November 22, 1927, to Class I Railroads, to be an official document of the Commission but that it simply reports the result of a study made by Dr. Lorenz. This compilation was prepared by Dr. Lorenz for the Commission from reports received in response to a questionnaire sent to Class I Railroads under date of November 22, 1927, and it unquestionably reflects the figures as reported and compiled by Dr. Lorenz and issued as an official document of the Commission, and it is therefore, in my opinion, authentic. However, I am willing to leave to the Commission the value of the statistics as shown.

Exhibit No. 82 filed by me embraces the territory in [fol. 1626] which this citrus fruit traffic originates and moves, while Mr. Hodkinson's Exhibit No. 214 covers other territory.

It has been shown that the population per mile of road is much greater in the Eastern group of states than in the Southern group of states, as originally shown by Mr. Hodkinson on his Exhibit No. 213, and this disparity is much greater when we confine our comparisons to the states in the Southern group through which the citrus fruit passes in reaching the Eastern destinations.

As shown by Mr. Hodkinson's Exhibit No. 212, for every period, with the exception of 1880 over 1870, the percentage of increase in population is greater in the Eastern group of states than in the Southern group of states, even including in the Southern group of states, Alabama, Kentucky, Mississippi and Tennessee, which states handle none of the citrus fruit traffic from Florida destined to Eastern territories.

Exhibit No. 216 is a statement filed by Mr. Hodkinson showing the citrus fruit traffic originated on specific roads and a percentage of all carload traffic originated in the Southern Region.

In this exhibit Mr. Hodkinson has omitted the Tavares & Gulf Railroad which originates a substantial amount of

citrus fruit traffic, particularly as compared to the total traffic originated.

[fol. 1627] He has likewise included the Southern Railway, whereas the Southern Railway does not originate any citrus fruit traffic in Florida, but all citrus fruit traffic from Florida handled by it is received from connections. That shown as originating on the Southern Railway represents shipments received from connections shipped to some warehouse on the Southern Railway and when reshipped is treated as originating on the Southern. The same is true of the Georgia, Southern & Florida, who are not involved in the citrus fruit case to Eastern destinations.

As the Southern Railway handles in every year substantially 50 per cent of the total carload traffic originated (net tons) handled by the five Southern roads shown by Mr. Hodkinson and does not originate any citrus fruit traffic, any comparison of this nature including the Southern Railway is unfair and misleading. If we eliminate the Southern Railway and the Georgia, Southern & Florida Railroad and add the Tavares & Gulf, the percent of citrus fruit of all carload traffic originated by the four Southern roads, as measured by net tons, would be changed for each year, as follows:

Year.	As Revised.	Adding Tavares & Gulf.
1920	2.5	
1921	3.5	
1922	2.7	
[fol. 1628] 1923	2.7	
1924	2.9	
1925	2.3	
1926		1.8 (Mediterranean fly.)

That drop of percentage there indicates the effect of the Mediterranean fly when an embargo was issued against the traffic in 1926.

In 1927, adding Tavares & Gulf, it was 2.2
In 1928, adding Tavares & Gulf, it was 2.3
In 1929, adding Tavares & Gulf, it was 4.1
In 1930, adding Tavares & Gulf, it was 3.4

Eliminating the Southern Railway, the remaining roads, the Coast Line, Florida East Coast, Seaboard Air Line and

Tavares & Gulf would still originate 100 per cent of the citrus fruit traffic in Florida.

If measured by carloads the citrus fruit traffic represents approximately 5 per cent of total carloads originating on the Atlantic Coast Line; 3 per cent on the Seaboard Air Line; 18.22 per cent on the Florida East Coast; and 65 per cent on the Tavares & Gulf.

A comparison of citrus fruit traffic originating on these four roads with the Southern Region as a whole is ridiculous, as it brings in the total of the Southern Region the heavy tonnage of coal on the Louisville & Nashville, Illinois [fol. 1629] Central and other coal carrying roads in the Southern Region, not involved in the Eastern movement of citrus fruit.

Mr. Hodkinson, at page 1131, stated:

"In the last block of this exhibit I have shown the percentage which the total citrus fruit traffic originated in the Southern Region was of the total carload traffic in that territory."

The last block is headed "Total carload traffic originated —Southern Region (net tons)". I find that the figures shown under this block included not only the carload traffic, but less than carload traffic as well.

Exhibit No. 217: This statement also covers the citrus fruit traffic. It shows the total citrus fruit carried and the percentage of the citrus fruit carried by the five roads to the total carload traffic carried.

The same criticism applies to this exhibit as made with respect to Exhibit No. 216.

In addition, part of the citrus fruit traffic carried by the Southern Railway is the California citrus fruit, delivered to it at Mississippi River crossings. Very little, if any, California citrus fruit traffic is handled by the Atlantic Coast Line, none by the Florida East Coast and Seaboard Air Line, and none of the California traffic is involved in this case.

[fol. 1630] Exhibit No. 218 is a distribution of tonnage by groups of commodities of the Eastern District (including the Pocahontas Region), the second page of which shows similar information for the Southern Region.

Mr. Hodkinson referred to the statement made by me that the products of mines and products of forests constitutes

approximately the same percentage of the total tonnage carried by the five southern roads on the one hand, and the seven and nine Eastern roads on the other, whereas the higher grade traffic which was less than carload freight and manufactures and miscellaneous commodities constituted an appreciably higher percentage of the Eastern lines' total traffic carried than of the Southern roads.

It seems my Exhibit No. 85, which deals with the five Southern roads, the seven and nine Eastern roads handling this traffic, also speaks for itself and bears out the statement made by me and referred to by Mr. Hodkinson.

Of course, I was dealing with the roads which handle this citrus fruit traffic and not with the Southern Region and the Eastern District as a whole. Naturally, in the Eastern District (including the Pocahontas) and including such roads as the Virginia, Chesapeake & Ohio and other large coal carrying roads, the inclusion of whose statistics distorts a comparison when dealing with the question of division of rates on citrus fruit traffic to Eastern destinations. [fol. 1631] These roads handle no citrus fruit traffic to Eastern destinations and the only proper comparison to be made is one such as was presented on my Exhibit No. 85.

This exhibit shows the 1928, 1929 and 1930 products of mines and products of forests combined are within 4.75 per cent of the nine Eastern roads as a maximum and running as close as 1.89 per cent of the seven Eastern roads in 1928, whereas manufacturers and miscellaneous show an excess for the nine Eastern roads in 1928 of 4.11 per cent; 3.49 per cent in 1929; and 2.93 per cent in 1930.

The maximum excess of less than carload freight of the five Southern roads compared with the Eastern roads is shown in 1929, when the Southern roads carried 5.09 per cent and the seven Eastern roads 2.69 per cent, an excess for the Southern roads of 2.13 per cent. However, the 5.09 per cent of tonnage on the Southern roads produced 16.50 per cent of the total revenue, but the revenue was 324 per cent of the tonnage, but on the seven Eastern roads 2.96 per cent of the tonnage produced 11.12 per cent of the revenue, or the revenue was 376 per cent of the tonnage versus 324 for the Southern roads. It would, therefore, seem a proper statement to say that the combined products of mines and forests for the five Southern roads are substantially equal to the combined products of mines and forests for the seven and nine Eastern roads.

[fol. 1632] An analysis of Mr. Hodkinson's Exhibit 218 and 219 would also still seem to bear out this statement.

Take, for example, 1921, the percentage of total traffic handled of products of mines and products of forests for the Eastern District (including the Pocahontas Region) was 66.26 per cent; while for the same year for the Southern Region the percentage was 62.12 per cent. In 1930 for the Eastern group 63.19 per cent; for the Southern group 60.51 per cent—not a wide disparity. Manufactures and miscellaneous for the Eastern group in every year shows a substantially higher percentage of total traffic in the Eastern group than in the Southern group, while it is true that of the "less than carload freight" the percentage of the grand total tonnage in the Southern group is slightly higher than in the Eastern group, but the smaller percentage of l. c. l. freight in the east produces relatively higher revenue than in the south and manufactures and miscellaneous on the five southern roads represented 25.60 per cent of the tonnage and 30.11 of the revenue, the revenue being 117 per cent of the tonnage. On the seven eastern roads, 28.53 per cent of the total tonnage produced 39.61 per cent of the total revenue, the revenue being 139 per cent of the tonnage.

Exhibit No. 219: This is a statement showing the heavy loading low grade tonnage of the Eastern District (including Pocahontas Region), the "Products of Mines", ex-[fol. 1633] pressed in tons originated, represented 63.33 per cent of the grand total. At the bottom of the statement, on the left-hand side, is also shown "Products of Forests", and for the year 1930 the tons originated represented 1.68 per cent of the grand total, or a total for these two low grade commodities of 65.01 per cent.

If you will now turn to sheet 2 of Mr. Hodkinson's Exhibit 218 you will note that for 1930 for the Southern Region, products of mines, as represented by tons originated, were 55.61 per cent of the grand total, and under Products of Forests, tons originated, 12.72 per cent or a total of 68.33 per cent of the grand total as compared with 65.01 per cent for the Eastern District.

As Mr. Hodkinson's Exhibit No. 219 makes a comparison for 1929 and 1928 we will also give the figures for these two years. For the Eastern District in 1929, Products of Mines, tons originated, represented 61.79 per cent of the grand total, and Products of Forests 1.86 per cent, a total of 63.65 per cent.

By reference to sheet 2 of Exhibit No. 218 in 1929 the per cent of Products of Mines for the Southern Region, tons originated, was 53.67 per cent and Products of Forests, tons originated, 15.60 per cent, a total of 69.27 per cent, compared with 63.65 per cent for the Eastern District.

In 1928 the Products of Mines, tons originated, for the [fol. 1634] Eastern District represented 61.23 per cent of the grand total, and Products of Forests 2.06 per cent, a total of 63.29 per cent, while for 1928 for the Southern Region the per cent of Products of Mines, tons originated, represented 55.59 per cent of the grand total, and Products of Forests 15.02 per cent, or a total of 70.61 per cent, compared with 63.29 per cent. These figures would indicate that the Southern Region does originate a very high percentage of low grade commodities when you add to the Products of Mine., in both comparisons, the Products of Forests.

At this point I now file as part of my testimony, Exhibit 291, a statement showing the number of tons of freight carried per mile, the first mile of main track and per mile of all main tracks in the Eastern District, including the Southern Region for each general commodity group for the calendar year 1929. The statement speaks for itself, but I would like to call attention to Products of Mines which shows tonnage per mile of first main track 13,215.6, for the Eastern District. For all main tracks 9,486.2; while for the Southern Region tonnage per mile of first main track was 3,233.8; tonnage per mile of all main tracks 2,903.9. The last column shows the percentage of Eastern District to Southern Region and for Products of Mines the Eastern District was 408.7 per cent for first main track and 326.7 for all main tracks. Manufactures and miscellaneous is [fol. 1635] shown for the Eastern District, tonnage per mile of first main track 5,952.5 and tonnage per mile of all main tracks 4,272.7. For the Southern Region tonnage per mile of first main track 1,629.6 and total per mile of all main tracks 1,463.3. As shown in the last two columns the percentage of the Eastern District to Southern Region for first main track was 365.3; for all main tracks 292 per cent. All l. c. l. freight shows for first main track 190.5 and 162.3 per cent of the Southern Region for the Eastern group.

Mr. Hodkinson's Exhibit No. 221 forms the basis figures for his Exhibit No. 222, and I will therefore pass up Exhibit 221 and confine my comments to his Exhibit 222.

At page 1139 of the record Mr. Hodkinson stated:

"This statement was prepared in exactly the same manner as Dr. Parmelee prepares his statements covering thirteen items for all Class I Railroads in the country."

By reference to Statement No. 27 introduced by Dr. J. H. Parmelee in Ex Parte 103, Dr. Parmelee said:

"This sheet consists of a chart of eleven factors of revenue performance which are blended into a composite index of railway efficiency, and the result is shown graphically for the past ten years."

Dr. Parmelee further stated that the eleven factors were named on the chart, two each being compared in item 2 (percentage of serviceable freight and passenger locomotives) [fol. 1636] and item 8 (locomotive miles per actual locomotive day—freight and passenger).

It will be noted that the basic items shown on Mr. Hodkinson's Exhibit No. 222 carried different items from the eleven on Dr. Parmelee's statement. Dr. Parmelee's statement showed 11 items while Mr. Hodkinson's statement showed 13. Dr. Parmelee shows as item 4, "Freight train speed". This item is not shown by Mr. Hodkinson. Dr. Parmelee shows as item 5, "Gross ton miles per ton of fuel" (excluding locomotive and tender). Mr. Hodkinson in his item 12 shows the "Pounds of coal per thousand gross ton miles (locomotive including)."

It will therefore be noted that Mr. Hodkinson's statement was not prepared in exactly the same manner as Dr. Parmelee prepared his latest statements, but that it is the old basis formerly used by the Bureau but now discarded.

In connection with the explanation of the method used in determining the relative level of freight rates for various rate territories in the United States, issued by Dr. M. C. Lorenz, Statistician of the Interstate Commerce Commission, covering the year 1928, he stated at Page 3:

"Roads with traffic consisting chiefly of coal or iron ore have much heavier average train loads and lower unit costs, not only per net ton mile but also per gross ton mile, than do roads having a miscellaneous mixture of freight. As [fol. 1637] being in a class by themselves, the coal and ore roads have been excluded from the summary totals. The

excluded group was made to cover all roads with an average carload in excess of 40 tons."

He then lists 21 roads which were excluded, of which 13 were in the Eastern District.

It will be noted that in obtaining the entry opposite "General Efficiency" the percentage is obtained by adding the 13 items and dividing the sum by 13, which gives identically the same weight to the 162 per cent and 148 per cent for items 5 and 6, "Gross ton miles per freight train hour", and "Net ton miles per freight train hour", as is given to any other of the 13 items. Or, stating it another way, the same weight is given to the 28,254 "gross ton miles per freight train hour", shown in line 5, as is given 15.1 shown for line 13, "pounds of coal per passenger train car mile."

The heavy coal-carrying roads of the Pocahontas Region, the Virginian and Chesapeake & Ohio, which roads are not involved in I. C. C. Docket 24069, by reason of the tremendously heavy loading of coal have materially brought up items 5 and 6, and, in my opinion, the inclusion of these roads in an efficiency study for this case completely destroys the value for comparative purposes.

The class of traffic handled in the Southern Region is such [fol. 1638] that the cars are not loaded so nearly to capacity as are the cars of the heavy coal-carrying lines of the Eastern District.

The very nature of the commodity involved in this investigation, citrus fruit, tends to depress for the Southern Region the two items contributing most to the efficiency of the Eastern carriers, viz:

Item 5, "Gross ton miles per train hour," and Item 6, "Net ton miles per freight train hour".

By reason of the very light loading of citrus fruit, approximately 16 tons per car (as compared with 69 percent of the tonnage loading over 40 tons per car in the Eastern District) and the necessity for high speed in transporting it to Eastern connections, reduces the tonnage per train, which tends to a lower operating efficiency as a whole for these two items in the Southern Region.

The Southern roads made up 21 hours out of the 24 to obtain fourth morning delivery of this traffic, which necessitated a material reduction in tonnage.

When we compare certain items shown for the average of the five year test period it will be found that for the average test period, 1920 to 1924, inclusive, the Southern Region was operating with greater efficiency than was the Eastern District. For example:

Item 1, "Freight car miles per car day" shows for the [fol. 1639] test period for the Eastern District 22.5 miles; for the Southern Region 28.5 miles.

Item 2, "Net ton miles per car day," 449 for the Eastern District and 488 for the Southern Region.

Item 7, "Freight locomotive miles per locomotive day," 52.7 for the Eastern District and 62.9 for the Southern Region.

Item 8, "Passenger locomotive miles per locomotive day," 101.8 for the Eastern District and 112.1 for the Southern Region.

Item 9, "Percentage serviceable locomotives, freight," 76.5 for the Eastern District and 81.9 for the Southern Region.

Item 10, "Percentage serviceable locomotives, passenger," 77.3 for the Eastern District and 82.3 for the Southern Region.

Therefore, the Eastern District had a much easier task in improving its efficiency as compared with 1920 to 1924 than did the Southern Region.

For example, it will be noted that the test period average of the Southern Region for item one, "Freight car miles per car day," which is one of the important factors, for the Southern Region was not equalled by the Eastern District prior to 1929. The highest figure for freight car miles per [fol. 1640] car day prior to 1929 was 28.2 for 1928 in the Eastern District, whereas the Southern Region had 28.5 as an average of the five years 1920 to 1924.

In 1929 the Eastern District made 29.7 miles, but it will be noted that the Southern Region in the same year made 34.3 miles. While the percent of increase in 1929 for the Eastern District shows 132 per cent, compared with the test period, and 120 per cent for the Southern Region, it is apparent that the Southern Region operated more efficiently for item one for the entire ten year period.

Taking item one of the Eastern District for the test period 22.5, and item one of the Southern Region for 1929, 34.3, the Southern Region would show an increase over the

test period of the Eastern group of 152 per cent, compared with 116 per cent for the Eastern group.

Another fact that should have careful consideration as affecting certain indexes of efficient operation is that in 1926 the pronounced depression in Florida, sometimes referred to as "the bursting of the Florida bubble" became effective and subsequently depressed the operations of the carriers of the Southern Region.

The Mediterranean fly, which affected citrus fruit and certain other commodities, caused an embargo to be placed upon shipments from Florida territory, and much of the fruits and vegetables was destroyed by the authorities.

This depression did not reach the Eastern carriers [fol. 1641] for some time after it seriously affected the roads of the Southern Region. Naturally, this curtailed the movement from Florida territory to all territories north, and in fairness to the carriers operating in the South these features should be considered in making any comparisons.

My conclusions, therefore, are that while the operating efficiency data shown by Mr. Hodkinson's Exhibit No. 222 may be of value when considering the efficiency or trend of efficiency for the roads of the United States as a whole, when comparing the data for two different groups they are less valuable, unless due weight is given to the different classes of commodities handled in the respective groups.

However, to show the results for the four Southern roads, the seven and nine Eastern roads I have prepared an Exhibit which I will file as Exhibit No. 292, showing the index of railway operating efficiency, years 1920 to 1930, inclusive, based on the Bureau of Railway Economics' revised basis as used by Dr. Parmelee in Ex Parte 103.

This statement is prepared in identically the same manner as was Dr. Parmelee's exhibit and I will only call attention to the last three lines opposite the entry, line 10 "Composite of nine foregoing factors of performances," or the simple average of the indexes of the nine factors. It will be noted that from 1923 to 1927, inclusive, the four Southern roads show a higher percentage of improvement than did the seven or nine Eastern roads. The percentage [fol. 1642] in 1927 being, four Southern roads 116.5; seven Eastern roads 115.3; and nine Eastern roads 115.1.

For the reasons previously stated, the Southern roads' operations were adversely affected as a result of the Flori-

da depression and embargo, but even considering that handicap, in 1930 the percentages were: Four Southern roads, 119.3½; seven Eastern roads, 125.4; and nine Eastern roads, 124.6.

When I referred to the Southern Railway System as one of the four southern roads in Exhibit 292 I meant the Southern Railway Company proper. The seven and nine Eastern roads are indicated at the bottom of the page.

Mr. Hodkinson filed as his Exhibit No. 225 a statement showing the freight proportion of operating expenses for the year 1929 for the Eastern District (including the Pocahontas Region) and for the Southern Region, making his cost comparison on basis of total ton miles (including locomotive and tender) and loaded freight car miles.

I have the following criticism to make of Mr. Hodkinson's Exhibit No. 225:

1. At page 1142 of the record he stated that if such a comparison is to be made the entire territory should be compared instead of certain selected roads. We do not feel that in dealing with an investigation having to do with the division of revenue on citrus fruit from Florida to Eastern [fol. 1643] destinations that it is proper to bring into the comparisons roads other than those handling citrus fruit traffic.

2. At page 1143 of the record Mr. Hodkinson set forth the reasons why in his opinion it is improper to use revenue ton miles in making a comparison of the relative costs. Let us analyze his reasons.

He stated, first (referring to my exhibit), "He omits entirely non-revenue ton miles. Non-revenue ton miles are made in hauling company supplies, fuel and materials used in construction and maintenance."

The revenue producing unit is the net ton mile. A railroad does not strive to handle a great volume of gross ton miles, but endeavors to get the revenue producing net ton miles. Non-revenue ton miles are made in hauling company supplies, fuel, etc., used in the maintenance and operation of producing the net ton miles and are merely incidental to reaching the revenue producing net ton mile.

Cost figures are usually published on a revenue ton mile basis, as for example Dr. Parmelee's Exhibit 2, sheet 22, in Ex Parte 103, shows cost per 1000 revenue ton miles for the Eastern District (including Pocahontas Region) for

1930 as $7.18, and for the Southern Region $7.82. But nowhere does he show gross ton mile costs including or excluding locomotives.

You will note Mr. Hodkinson stated, "and materials [fol. 1644] used in construction."

Possibly Mr. Hodkinson overlooks the fact that the classification of operating expenses provides, under General Account 8—Transportation for Investment—Credit—for crediting to operating expenses and charging concurrently to the appropriate property investment account expense incurred in connection with construction work, thereby eliminating from operating expenses the expense due to handling construction material.

His second reason was, "The revenue ton miles do not take into consideration either the tons of locomotive and tender, rolling stock and caboose, either loaded or empty, both of which, together with the lading, must be taken into consideration, especially in dealing with yard maintenance and operations."

I take exception to this view. Mr. Hodkinson emphasizes, you will note, "especially in dealing with yard maintenance and operation." It is a well established fact that yard locomotives are seldom utilized to their full tonnage rating. A yard engine will handle from one car to the capacity of the locomotive or tracks, and gross tonnage is not the proper measure when ascertaining yard costs. The efficient switching performance is approximately 15 cars to the cut in merchandise freight.

There is some merit in the inclusion of the weight [fol. 1645] of locomotive and tender and tare weight of cars when dealing with maintenance accounts affected approximately 33 1/3 percent by weight, and for such items only.

If we were endeavoring to assign to a specific commodity the cost of performing the service, which all accountants will agree is impossible to do with mathematical accuracy, it would of course then be proper to use the gross ton mile costs, but excluding locomotive and tender, obtain the tare weight of the car and lading, and apply the gross ton mile costs to the car and contents. uBt in thirty years' experience in cost accounting I have never heard of the weight of locomotive being included in gross ton miles in such an investigation.

By reason of the lighter lading of the commodities handled in the Southern Region as compared with the average lading in the East and the lighter train lading and lighter density of traffic, the cost per net ton mile, representing the revenue producing factor, is relatively higher in the South than in the East.

Mr. Hodkinson, as his third reason, states, "Gross ton miles are the basis of OS forms reported by the carriers to the Interstate Commerce Commission pursuant to its accounting regulations."

The OS forms reported by the carriers to the Interstate Commerce Commission are used largely for measuring the [fol. 1646] efficiency of operation, not for the purpose of determining absolute costs.

Mr. Hodkinson has not only used the gross ton miles, cars and contents, but he has further diluted and destroyed the value of his figure by also including the weight of locomotive and tender.

I assume, following the same line of reasoning or applying the theory used by Mr. Hodkinson, that if he were endeavoring to determine the cost per unit of hauling bricks with a cart and mule, he would add the weight of the mule and cart in ascertaining his costs.

At page 1144 of the record Mr. Hodkinson stated, "A comparison made on the basis of loaded freight car miles is fairer than a comparison made on the basis of revenue ton miles."

The cost to the Eastern District per loaded freight car mile should unquestionably exceed the cost per loaded freight car mile to the Southern Region, because the average tons per car for the Eastern District, including the Pocahontas Region, for 1929 was 29.8, while for the Southern Region they were 25.1, the average tons per car for the Eastern District being 118.73 per cent of the average tons per car of the Southern Region. In other words, the Eastern District has more tons per loaded car, which should produce a somewhat greater cost per loaded car mile than [fol. 1647] for the Southern Region.

The figures shown on Mr. Hodkinson's Exhibit No. 225 are, of course, the average cost of handling all commodities in the respective districts or regions. Neither the figures on this exhibit nor in my exhibit No. 90, are the actual costs of handling this particular traffic. My exhibit No. 90 merely showed that for all traffic as measured by tons or ton miles

the cost in the south is higher than in the east. Based on the average cost of handling all commodities the cost per ton or per ton mile would, of course, be higher for the citrus fruit traffic.

Mr. Bassett filed as his Exhibits No. 226 (2 sheets) and No. 227 (1 sheet) at the Washington hearing held on July 2nd, statements relative to equated traffic units.

Exhibit No. 226 (sheet one) reproduces my Exhibit No. 91 and adds thereto results for the Eastern District (including the Pocahontas Region) and the Southern Region, using three times the passenger miles to equate the units.

I. C. C. Docket No. 24069 covers the division of revenues on citrus fruit from Florida to destinations in the East, via Potomac Yards.

As shown by the record, the four southern roads originate all of the citrus fruit traffic in Florida. No other roads in the Southern Region excepting the four named are involved in the handling of this citrus fruit traffic to [fol. 1648] Eastern destinations. The records show that practically 98 per cent of the citrus fruit traffic from Florida to Eastern destinations is delivered on the seven Eastern roads shown on my Exhibit No. 91. Therefore, it follows that the statistics of the carriers involved are those which should be considered in fixing divisions of revenue derived from this citrus fruit traffic and only of those handling the traffic. The inclusion of other roads has no bearing upon the complaint as originally filed.

As to movements to C. F. A. territory, different roads and different routes are involved and will be covered by other exhibits dealing with the carriers who handle that traffic.

On the second sheet of Exhibit No. 226 Mr. Bassett has shown the results, using the actual ratio of the revenue per passenger mile to revenue per ton mile for the roads involved, also for the Eastern District and Southern Region.

At the bottom part of the statement is shown the traffic units equated on the ratio of expenses per passenger mile to expenses per revenue ton mile.

Three bases are shown on Mr. Bassett's Exhibit No. 226, under any of which, it will be noted, as excess of traffic units per $1,000 of investment is shown for the Eastern roads.

By reference to line 20, sheet A, the percentage of [fol. 1649] excess ranges from 61.26 per cent to 68.57 per cent, and on sheet B the actual ratio percentage of excess, ranges from 61.98 per cent to 74.52 per cent.

Likewise, under any of the three bases there is shown a substantial excess cost per 1,000 traffic units.

It should be understood that the figures shown on Mr. Bassett's Exhibit No. 226 and on my Exhibits Nos. 91 and 92 do not reflect the actual costs in the two districts of handling citrus fruit traffic. This is particularly true of the Southern carriers originating this traffic, shown on my Exhibits 91 and 92 and reproduced on Mr. Bassett's Exhibit 226, in that the costs shown are the average costs of handling all commodities.

Citrus fruit traffic is perhaps one of the most expensive classes of traffic handled by the Southern carriers, resulting in costs per unit considerably in excess of the average costs per unit of handling other classes of traffic.

For example, the records show that there is an extremely expensive expedited gathering service in handling citrus fruit traffic and that in order to meet the fourth morning delivery it was necessary for the Southern carriers to absorb approximately 20 hours of the 24 hours shortening of the schedule. It naturally follows that in order to shorten this schedule it was necessary to reduce the tonnage of the trains, thereby increasing the unit costs when [fol. 1650] measured by ton miles or car miles, and the fact that this commodity loads only approximately sixteen tons to the car, compared with twenty-eight tons for all carload traffic, would indicate that the cost per revenue ton and per revenue ton mile of handling this commodity is far in excess of the average cost of handling all commodities.

While I have not available the statistics for the individual Southern and Eastern roads participating in this traffic, I filed as an exhibit, marked No. 291, a statement showing for the Eastern District (including the Pocahontas Region) and the Southern Region, for the year 1929, the miles of first main track, the miles of all main track and the tonnage of the respective commodities; and for each the Eastern District and the Southern Region, the tonnage per mile of first main track and per mile of all main track for the several commodities.

The tremendous difference or advantage of the Eastern District over the Southern Region is reflected in every class of commodity as measured by the density of traffic per mile of either first main track or per mile of all main track, the Eastern District showing a substantial excess over the Southern Region for all commodities excepting products of forests.

In "Divisions of Joint Rates and Fares on M. & N. A. Railway Company", 98 I. C. C. 119, the Commission said, [fol. 1651] at page 129:

"In so far as these appendices purport to show on the ton-mile basis the average expense of handling the business interchanged, they are subject to the criticism that the expenses shown are for each carrier its average expense in connection with its entire system freight operations for each of the years indicated, and their use for the purpose of showing expense of handling the interchanged traffic involves the assumption that the traffic interchanged would be handled at the same cost per ton mile as the average system cost * * *"

And it further stated:

" * * * and where the freight traffic interchanged differs materially in character from the system average, or the relative proportions of interchanged freight traffic of different kinds vary substantially from such proportions of freight handled in system operations. The character of traffic interchanged, the manner in which it is handled, the loading, and average length of haul, and other facts which determine the rates and the earnings on the ton-mile and car-mile bases may not be the same for the traffic interchanged as for the total freight traffic of the carrier."

As indicated by the Exhibit No. 291 just filed by me and it is my understanding from studies made by the traffic committees, which facts will later be presented in this case, [fol. 1652] there is a wider difference in the traffic interchanged particularly in citrus fruit traffic, than in the general traffic going to make up the average costs of operation. The relationship between the two groups of the various commodities are indicated by the statement just filed.

For these and other reasons, as previously stated, the figures shown on Exhibit 226 filed by Mr. Bassett, and on my Exhibits 91 and 92, do not truly indicate the difference in these unit costs, but as it is impossible to determine the actual cost of handling this one commodity the average cost figures are submitted to the Commission merely to indicate that such unit costs with all of their defects are higher in the South than in the North, but that they can not possibly reflect the true unit costs on the traffic which actually moves between the North and South, which because of its higher grade and other characteristics must, I think, involve much higher relative costs than those developed for all groups traffic.

In Exhibit No. 227 Mr. Bassett went to extreme lengths in an effort to break down the value of the traffic unit.

On cross-examination the only question asked Mr. Bassett was:

"Mr. Bassett, for the record will you please name the four roads used by you on your Exhibits 227 designated [fol. 1653] as roads A, B, C and D respectively?"

Mr. Bassett's answer was that road A was the Long Island Railroad; road B the Virginian Railroad; road C the Delaware & Hudson; and road D the New York Central.

In connection with his answer attention is called to the fact that the Virginian Railroad is not involved in any manner, shape or form in these proceedings and does not handle any citrus fruit. It is strictly a coal-carrying railroad, and in 1930 only 1.41 per cent of its total revenue was derived from passenger service.

Again the Long Island Railroad, which does not participate in the handling of this traffic, derives 68.36 per cent of it- entire revenue from passenger service.

It was only possible for Mr. Bassett to produce the distortion shown by his Exhibit No. 227 by selecting these two carriers not involved in these proceedings, one a strictly coal-carrying road and the other predominantly a passenger carrier—the two extremes.

The Delaware & Hudson, while handling only a little over 1½ per cent of the citrus fruit traffic to Eastern destinations, and the New York Central are both involved in this investigation, I have no criticism of the use of their statistics.

What I have attempted to do in this case is to present to the Commission a composite picture of the entire oper-
[fol. 1654] ations of the several groups of carriers in the respective territories handling this traffic.

In presenting this composite picture it was necessary that I use a statistical index which would embrace all operations and "overhead", and after careful consideration I selected the "Traffic Unit" as best suited for this purpose.

I used the mutiple of three because of the fact that such a multiple represented approximately the relationship between the revenue derived from the freight ton mile as compared with the passenger units for the roads involved and is the factor generally used.

My further investigation indicated that the exact relationship stated in the multiple would have produced approximately the same relative factors, as I will show later, and more favorable to the Southern roads.

Mr. Bassett's criticism is directed mainly to the use of the equation factor of three.

It is my opinion that the actual ratio of revenue per passenger mile to revenue per ton mile more nearly reflects the proper equasion factor. I had prepared an exhibit to file on this basis, but as Mr. Bassett has filed one using the actual ratio, on sheet 2 of his Exhibit No. 226, there is no need of my duplicating the exhibit. It will also be noted that the actual ratio produces results more favor-
[fol. 1655] able to the Southern carriers than does the ratio of three to one.

Mr. Bassett also points out what he claims is a fallacy in using the same ratio for different years. On the upper part of the sheet 2 of Mr. Bassett's Exhibit No. 226 he shows the actual ratio for each of the three years. Therefore, if the actual ratio has been used this criticism fails.

The exhibit shows that for the three years 1928, 1929 and 1930 the actual ratio of the five Southern roads and seven and nine Eastern roads to be as follows:

	Five Southern Rds.	Seven Eastern Rds.	Nine Eastern Rds.
1928	2.5	2.9	2.8
1929	2.4	2.9	2.8
1930	2.5	2.9	2.9

No violent fluctuations; on the contrary, almost identically the same each year for each group of roads.

When the statistics of the particular carriers involved in handling this citrus fruit traffic are thrown together you obtain an average condition on the respective groups.

Therefore, if each year's equasion factor is used, any irregularities or fluctuations, one year with another, are automatically taken care of. However, as will be noted [fol. 1656] from the figures just read into the record there were substantially no fluctuations in the ratios for any of the three years.

Again Mr. Bassett made all his comparisons by using Road "A", the Long Island, with Roads "B", "C" and "D". Had he been fair he should also have compared Road "C", the Delaware & Hudson, with Road "D", the New York Central, but had he done so he could not have shown the distorted figures he obtained by using Road "A". A comparison of Roads "C" and "D" would have shown for Maintenance of Way & Structures a fluctuation of only 1 per cent under any of the three bases, two of the bases being identical.

For Maintenance of Equipment a fluctuation of only 3 per cent, two of the bases being identical.

For Transportation a fluctuation of 6 per cent. Again on two of the bases the percentages were identical.

For Station Expenses all three bases show the same identical percentages, and for Yard Expenses two bases show the same percentages and the third differs 14 per cent. For total expenses, the percentage under the three bases were 76 per cent, 98 per cent and 99 per cent respectively. It would merely be a coincidence if the figures for any two roads would be identical for all items of expense.

Sheet two of the exhibit shows for each of the four Southern roads and seven Eastern roads the percentage of rev- [fol. 1657] enue per passenger mile to revenue per ton mile.

I now file as part of my testimony, marked Exhibit No. 293, two sheets, a reproduction of Mr. Bassett's Exhibit No. 227, excepting that I have added to roads "A", "B" "C" and "D" the seven Eastern roads and the four Southern roads. I have also added Table VIII for the four Southern and seven Eastern roads, and at the bottom of Table IV have the cost per 1,000 ton miles for total freight expenses and per 1,000 traffic units under the first and second bases.

The four Southern roads are the Atlantic Coast Line, Florida East Coast; Seaboard Air Line and Southern Railway. The reason that the Tavares & Gulf is omitted is that it does not report to the Commission the necessary statistics required to make up the tables shown on Mr. Bassett's Exhibit No. 227.

An inspection of this exhibit of mine will show that there are no wide variances in the various percentages for the group of roads or individual roads involved in this investigation as reported by Table I to IV, inclusive. On this exhibit I have endeavored to present to the Commission the facts as represented by the statistics of the roads involved in handling this citrus fruit traffic.

A glance at Table I will show that for the seven Eastern roads the percentage of revenue per passenger mile to revenue per ton-mile, or the equasion factor necessary to mul-
[fol. 1658] tiply the passenger miles, shows 2.9 for the five years 1926 to 1930. For the Southern roads, 2.5 for the years 1927 to 1930 and 2.6 for 1926.

Table II shows that the widest variance in the seven Eastern roads for the five year period is between 3.6 and 4.5 as representing the equasion factor necessary to multiply passenger miles if the percent of expense per passenger mile to the expense per ton mile is used. For the four Southern roads, from 3.9 to 5.5. Like Mr. Bassett, I do not subscribe to its use.

Table III shows for the year 1930 comparisons of respective percentages.

Taking Table IV, when the freight expense per thousand ton miles is used, it shows that for every one of the five blocks of expenses shown (excepting Yard Expenses, which are the same in both groups of roads) and for total Operating Expenses, the cost for the four Southern roads is greater than for the seven Eastern roads.

When the total expense per thousand traffic units on the first basis, which uses the factor of three, is considered the costs are likewise in every instance for every group of expenses, and total, higher per unit for the four Southern roads than for the seven Eastern roads.

The second basis uses the actual per cent of revenue per passenger mile to revenue per ton mile, and again in every
[fol. 1659] instance the cost for the four Southern roads

is greater than for the seven Eastern roads. This latter basis is the most reliable basis.

Table VIII, which I have added and which is similar to Tables V, VI and VII, shows a comparison of the seven Eastern and four Southern roads for 1930, the same year used by Mr. Bassett, and the percentage relationship of the seven Eastern roads to the four Southern roads for Maintenance of Way & Structures shows 71 per cent; for Maintenance of Equipment 83 per cent; Transportation 78 per cent; Station Expenses 72 per cent; and Yard Expense 100 per cent; the cost for Yard Expense being identical in both groups of roads. Total operating expenses, freight, shows 81 per cent.

In the second column, the percentage relationship based on traffic units, first basis, the per cent of Maintenance of Way & Structures is 69 per cent; Maintenance of Equipment 82 per cent; Transportation 80 per cent; Station Expenses 76 per cent; Yard Expense 89 per cent; and Total Expenses 78 per cent.

In the third column the percentage relationship (second basis) shows Maintenance of Way & Structures 67 per cent; Maintenance of Equipment 80 per cent; Transportation 78 per cent; Station Expenses 74 per cent; Yard Expenses 88 per cent, and Total Expenses 76 per cent.

In other words, the cost per thousand ton miles for the [fol. 1660] seven Eastern roads for Maintenance of Way & Structures shows a variation from only 67 per cent to 71 per cent; Maintenance of Equipment 80 per cent to 83 per cent; and Transportation Expenses show only 78 per cent; 80 per cent and 79 per cent of the cost to the four Southern roads. Station Expenses 72 per cent to 76 per cent; Yard Expenses from 88 per cent to 100 per cent; and total Expenses from 76 per cent to 81 per cent; indicating that under any one of the three bases used by Mr. Bassett the cost to the four Southern roads is greater than for the seven Eastern roads. The same relative condition is found for each of the five years 1926 to 1930, inclusive.

Sheet two of the exhibit shows for each of the four Southern roads and the seven Eastern roads the percentage of revenue per passenger mile to revenue per ton mile, and the average for four Southern roads and seven Eastern roads.

It will be noted that there are no wide differences in the percentages of the carriers in the respective groups of roads, nor any wide fluctuations, one year as compared with another. Taking the four Southern roads, not one would show a change in the equasion factor of more than 2/10 in any two years of the five. The same is relatively true of every one of the seven Eastern roads.

I have prepared and file as part of my testimony, marked Exhibit No. 294, a statement similar to Mr. Bassett's Ex-
[fol. 1661] hibit No. 227, excepting that the information is shown for the four Southern roads and the seven Eastern roads, and that Table IV and V show the information for each of the five years 1926 to 1930.

I have omitted Table III shown on Mr. Bassett's Exhibit, as the same comparison is afforded by comparing the first column in Table I and Table II for the four Southern roads and the second column in each of the two tables for the seven Eastern roads.

Table IV corresponds to Table V on Mr. Bassett's Exhibit 227, excepting that I have shown the comparisons for the five year period instead of the one year 1930 as used by Mr. Bassett.

Three bases are shown under this table, the first being the freight expense per thousand ton miles, the second total expense per thousand traffic units on the first basis; that is, using the factor of three for multiplying passenger miles. The third section shows the total expense per thousand traffic units under the second basis, which is the actual ratio of revenue per passenger mile to revenue per ton mile for these two groups of roads. The statement speaks for itself, but I direct your attention to Table V at the bottom which shows the percentage relationship of the seven Eastern roads to the four Southern roads. In other words, the per-
centage shown there is the percentage of cost of the Eastern
[fol. 1662] roads to similar costs for the Southern roads. Taking just one illustration, Maintenance of Way, for 1926, that means that the cost for the Eastern roads is 78 per cent of the Southern roads. At the top of that column, under the year 1926, Maintenance of Way and Structures, shows for the four Southern roads $1.81; for the seven Eastern roads $1.41; the Eastern roads being 78 per cent of the Southern roads' cost.

Mr. Bassett also presented an Exhibit, No. 228, in which he endeavored to show certain results.

It seems that this exhibit may be discarded without any particular comment, first for the reason that it compares the Eastern District and Southern Region, and, second, for the reason that it contains a fundamental error which has been passed upon by the Supreme Court.

It will be noted that Mr. Bassett has used, in line 9, for obtaining the "Freight proportion of Investment", "Taxes", etc., the "Freight proportion of operating revenues."

I do not recall for many years any statistician or accountant of prominence using operating revenues as a basis for apportioning property investment or taxes, etc.

Operating revenues have been discredited and abandoned as a measure of distributing operating expenses or property values, particularly since the Minnesota Rate Case, decided by the Supreme Court in October, 1912.

[fol. 1663] At page 62 of the decision in the Minnesota Rate Case the Court stated:

"When rates are in controversy, it would seem to be necessary to find a basis for a division of the total value of the property independently of revenue, and this must be found in the use that is made of the property. That is, there should be assigned to each business that proportion of the total value of the property which will correspond to the extent of its employment in that business."

With reference to the use of gross earnings as the basis of apportioning the value of property the Court further said:

"In support of this method, it is said that a division of the value of the property according to gross earnings is a division according to the 'value of the use' and therefore proper. But it would seem to be clear that the value of the use is not shown by gross earnings. The gross earnings may be consumed by expenses, leaving little or no profit".

It also further stated:

"If the property is to be divided according to the value of the use, it is plain that the gross earnings method is not an accurate measure of that value".

Therefore, the results reflected by this exhibit should have no consideration whatever by the Commission.

[fol. 1664] Further, Mr. Bassett has shown the results for the Eastern District and the Southern Region. The Eastern District is made up of some sixty carriers, whereas only seven carriers handle 98 per cent of the citrus fruit involved in this investigation, and only four carriers out of approximately thirty in the Southern Region are involved in this citrus fruit traffic from Florida to Eastern destinations.

I have prepared certain exhibits covering statistics and operations of the Southern and Eastern roads handling this citrus fruit traffic to C. F. A. territory, and I will now file as part of my testimony, marked Exhibit No. 295, consisting of four sheets, a statement showing commodity statisties to C. F. A. territory and for 8 Eastern roads to C. F. A. territory, for each of the years 1928, 1929 and 1930. The roads shown on this exhibit handle over 95 per cent of the citrus fruit traffic from Florida to C. F. A. territory.

Sheet 1 of the exhibit is a condensed statement showing Products of Agriculture, Animal Products, Products of Mines, Products of Forests, Total Products of Mines and Forests, Manufactures and Miscellaneous, All L. C. L. Freight and Total Revenue Freight Handled, expressed in percentage of the total tonnage, for 18 Southern roads and 8 Eastern roads. The statement speaks for itself and the names of the roads involved are indicated at the bottom of the statement.

[fol. 1665] I will call attention to the fact that with the single exception of total products of agriculture, the percentage of tonnages produces a higher percentage of revenue in the east than in the south.

Sheets 2 and 4 of the exhibit give a little additional information for each of the 18 Southern roads to C. F. A. territory and the total for the 18 Southern roads, and for each of the 8 Eastern roads to C. F. A. territory, and the total for the 8 Eastern roads. In addition to the information shown on sheet one of the exhibit, statistics pertaining to citrus fruit is shown in the first block of the exhibit. For the 18 Southern roads in 1928 the tonnage represented 65/100 of one per cent of the total tonnage and 2.52 per cent of the total revenue.

It will be noted that the importance of this traffic to the 18 Southern roads is considerably greater than to the 8 Eastern roads, as the tonnage of citrus fruit represented only 14/100 of one per cent of total tonnage and 28/100 of one per cent of total revenue, as compared with 2.52 per cent for the 18 Southern roads. In 1929 the citrus fruit traffic represented 1.06 per cent of the total tonnage and 3.76 per cent of the total revenue for the 18 Southern roads and represented 21/100 of one per cent of the total tonnage and 39/100 of one per cent of the total revenue for the 8 Eastern roads. In 1930 citrus fruit traffic represented .94 per cent of the total tonnage and 3.42 per cent of total rev- [fol. 1666] enue of the 18 Southern roads and 17/100 of one per cent of total tonnage and 33/100 of one per cent of total revenue of the 8 Eastern roads.

I have prepared a statement for 18 Southern and 8 Eastern roads to C. F. A. territory, showing freight and passenger service operating statistics similar to my Exhibit 86 for 4 Southern and 7 and 9 Eastern roads to Eastern destinations, and now file as part of my testimony, marked Exhibit No. 296, a statement, in two sheets; sheet one showing freight and passenger service operating statistics for the calendar year ended December 31, 1920, for 18 Southern roads handling the citrus fruit traffic to C. F. A. territory and for 8 Eastern roads to C. F. A. territory. Sheet two is a similar statement for the calendar year ended December 31, 1929.

It will be noted that no figures are shown for the Macon, Dublin & Savannah Railroad, Savannah & Atlanta Railroad and Tavares & Gulf Railroad, as these are Class II Roads and no information for them is available. The statement will speak for itself and no comments are necessary.

In connection with the movement of citrus fruit to Eastern territory Mr. Hodkinson filed as his Exhibit No. 222 a statement showing comparative operating efficiency data for the Eastern District (including Pocahontas Region) and for [fol. 1667] the Southern Region. I filed in response thereto an exhibit for four Southern roads and seven Eastern roads. I have prepared a similar exhibit for 15 Southern roads and 8 Eastern roads involved in handling this traffic to C. F. A. Territory, and now file as part of my testimony, marked Exhibit No. 297, a statement showing Index of Railway Operating Efficiency, years 1920 to 1930, the average for

the five years 1920 to 1924 equalling 100 per cent, for the aggregate of 15 Southern roads and the aggregate of 8 Eastern roads.

As the Macon, Dublin & Savannah, Savannah & Atlanta and Tavares & Gulf Railroads are Class II roads and are not required by the Interstate Commerce Commission to file statistics, these roads are of course omitted.

This statement is prepared in identically the same manner as the one previously filed by me and as filed by Dr. Parmelee in Ex Parte 103. The statement is largely self-explanatory, but I will call attention to the fact that again the 15 Southern roads showed a greater improvement in efficiency for the years 1923, 1924, 1925, 1926 and 1927 than did the 8 Eastern roads. In 1927 the per cent of efficiency based upon the average for the five years 1920 to 1924 being 115 per cent for the 15 Southern roads and 114 per cent for the 8 Eastern roads. In 1928 the Southern roads' percentage was 117 per cent; Eastern roads 118 per cent; [fol. 1668] in 1929 Southern roads 119 per cent; Eastern roads 121 per cent; and in 1930, Southern roads 119 per cent; Eastern roads 123 per cent.

The same conditions referred to by me in connection with the previous exhibit filed with respect to the Southern carriers apply to this exhibit, namely: the depression in Florida, the Mediterranean fly, etc., having had a tendency to pull down their efficiency to a greater extent than for the Eastern roads for the same particular periods.

I have prepared an exhibit showing the property investment, operating income accounts and traffic statistics for 18 Southern roads and 8 Eastern roads handling this traffic to C. F. A. territory, and I now file as part of my testimony, marked Exhibit No. 298, consisting of six sheets, a statement showing property investment, operating income account and traffic statistics for the years 1928, 1929 and 1930, for 18 Southern roads to C. F. A. Territory, and for 8 Eastern roads to C. F. A. Territory.

Sheet one of this exhibit shows that the rate of return on total property investment, shown by line 29, for the 18 Southern roads was 4.10 per cent. Sheet two shows for the 8 Eastern roads 5.42 per cent; excluding the Illinois Central, 5.56 per cent. In 1929 18 Southern roads 4.08 per cent; Eastern roads 5.58 per cent; excluding the Illinois Central 5.82 per cent. 1930, 2.56 per cent for the 18 South-

[fol. 1669] ern roads and 3.53 per cent for the 8 Eastern roads. The 1930 figures include the New York Central System under the consolidation. Attention is drawn to Note "a" on the last sheet of the exhibit; therefore, the figures are not as comparable as are the prior years when the Big Four and other lines could be shown separately. I mentioned the inclusion or exclusion of the Illinois Central Railroad. A considerable portion of the mileage of that System line lays in southern territory. It also operates in Central Freight Association Territory.

I filed in the Eastern Case a statement showing freight proportion of operating expenses of the four Southern carriers and seven and nine Eastern roads handling this traffic to Eastern destinations. I have prepared a like exhibit for the carriers involved in handling C. F. A. territory traffic, and now file as part of my testimony, marked Exhibit No. 299, a statement showing Freight Proportion of Operating Expenses for the year 1929 for 18 Southern roads and 8 Eastern roads handling this citrus fruit traffic to C. F. A. Territory.

Again the Class II roads are omitted as indicated in note "a" on the statement.

At the bottom of the statement is shown the cost per revenue ton and per revenue ton mile for yard accounts, other than yard accounts and total all expenses. It will be noted [fol. 1670] that the cost per ton for all expenses, 8 Eastern roads to 18 Southern roads, is 83.37 per cent, and the cost per revenue ton mile for all expenses is 78.18 per cent. The costs per ton for yard expenses and per ton mile are 99 per cent and 93 per cent respectively, for the cost per ton for other than yard accounts, 80.93 per cent, and cost per revenue ton mile for other than yard accounts, 75.90 per cent.

These figures, of course, do not reflect the actual cost of handling citrus fruit traffic but are the average System costs and have the same frailties indicated by the Interstate Commerce Commission in division of joint rate affairs, M. & N. A. Railway, 98 I. C. C. 119, previously quoted by me.

In view of the similarity between these series of exhibits relating to the C. F. A. territory and the exhibits that I filed previously relating to the East, I do not think any further explanation of this last series is necessary.

In the light of the comments I have heretofore made upon this subject I have two additional exhibits that I wish to file dealing with relative costs in the south as compared with C. F. A. Territory. I will file as part of my testimony Exhibit No. 300, Statement Showing Comparison of Traffic Density and Operating Costs for the 18 Southern roads and 8 Eastern roads, Central Territory, Calendar Years 1922-1929. The reason that 1930 is not shown is because of a consolidation of the New York Central lines which pre- [fol. 1671] cluded our obtaining separate figures. The names of the roads are shown at the bottom of the exhibit. The statement indicates that the cost per thousand traffic units—that the excess cost per thousand traffic units in Southern roads is 30.56 per cent of the 8 Eastern roads for 1928 and 33.63 per cent for 1929. I will state that the equation is affected by the use of the ratio of tonnage per passenger mile and revenue per ton mile or the actual ratio which is shown by line 26 at the bottom of the page.

Exhibit 301 is a similar statement in every respect to Exhibit 300, excepting that it eliminates the Illinois Central Railroad which is included in Exhibit 300. With the elimination of the Illinois Central in 1928 the excess total cost per thousand traffic units for the Southern roads are 30.5 and for 1929 33.76 per cent. I might state line 23 shows the excess traffic units per mile of road on the Eastern roads and percentage is 216.20 of the Southern carriers in 1928 and 261.61 per cent in 1929 as shown by line 23.

I desire to submit these two exhibits and have them considered in the light of what I previously said concerning the value of studies of this kind, with the same qualifications as shown in connection with those exhibits, and such explanation as has been made heretofore in respect to the similar exhibits to the east will be sufficient to make these [fol. 1672] exhibits entirely clear.

Mr. Gwathmey: I desire to offer these exhibits, Mr. Examiner. (Said documents, *os* offered, were received in evidence, marked "Exhibits 291 to 301, both inclusive, Witness Lamb.")

Cross-examination.

By Mr. Calhoun:

You are not correct in understanding that neither Exhibit 300 nor Exhibit 301 use my so-called three-for-one theory

because it uses the actual ratio; also Mr. Bassett's criticism was directed to the three-for-one basis and I had prepared an exhibit using the actual ratio, but in view of the fact that he filed as part of his testimony, sheet 2, the figures on the actual basis, I did not think it was necessary to duplicate it, but I have adopted here the actual ratio which I think is more accurate and more truly reflects the results than the three-for-one.

The reason for including or excluding the Illinois Central in C. F. A. Territory in my exhibits is because there is a peculiar situation surrounding the Illinois Central. It is technically a Southern carrier; its mileage is largely in the Southern group, yet it handles a very substantial amount of this citrus fruit traffic from Martin, Tennessee, [fol. 1673] to Chicago, only about 30 miles in the Southern group and the balance being in C. F. A. territory; so there is a little peculiar situation there and I show it up in this last exhibit, both including and excluding it.

On some of these exhibits covering the East, Trunk Line and New England, I have shown the New York Central, including the Cleveland, Cincinnati, Chicago & St. Louis Railroad, the Cincinnati & Northern and the E. I. & T. H. and the Michigan Central. I have also included the C. C. C. & St. L. and the Michigan Central as C. F. A. roads in the C. F. A. exhibits. The reason for that was that in 1930, as you are well aware, the New York Central consolidated its various lines, the Big Four, the Michigan Central and other lines. Therefore it was impossible for us to get separately for 1930 certain statistics pertaining to those lines which were consolidated with the New York Central System and that is why the note is shown on certain exhibits there. The 1930 data in Exhibit 292 includes the C. & N., the Big Four, the E. I. & T. H. and the Michigan Central. Those are the total figures for all those roads.

For the years prior to 1930 shown on my Exhibit 292 where I have shown figures for all of the roads under discussion, namely the New York Central, the Cincinnati Northern, the C. C. C. & St. L., the E. I. & T. H. and the Michigan Central, the figures were prepared for me by the [fol. 1674] Bureau and they accumulated the figures. I do not believe that it was necessary to really add them together. I think you do report a consolidated system report and I think the Bureau derives those figures from the Sys-

tem report. I have even for prior years on Exhibit 292 as typical, included the C. & N., the C. C. C. & St. L., the E. I. & T. H. and the Michigan Central in Trunk Line and New England group. I was under the impression that the New York Central figures could be segregated until we got into that later. The figures were furnished me by the Bureau and included those lines as indicated by the note. In some of the exhibits the Tavares & Gulf figures are included and in others they are not included. I put them in in every instance where they were available. Being a Class 2 road, no operating statistics are required by the Commission. It is impossible to get those statistics; therefore, it was impossible to include them.

Note: The hearing was adjourned until November 17, 1931, at 10 o'clock A. M.

[fol. 1675] Washington, D. C., November 17, 1931.

Met pursuant to adjournment.
Present: Same parties as heretofore noted.

WILLIAM J. CUNNINGHAM, after being first duly sworn, testified as follows:

Examined by Mr. Beach:

I am William J. Cunningham; Professor of Transportation, Graduate School of Business Administration of Harvard University, Cambridge, Massachusetts.

My experience has been of three kinds; first, in actual railroad service, and second, in University work; third, in consulting work in rate cases.

Between 1892 and 1900 I was employed in various minor capacities with the Canadian Pacific, Boston & Albany and New Haven Railroads in the traffic and operating departments; between 1900 and 1907 I was assistant chief clerk to the General Superintendent of the Lackawanna Railroad; between 1907 and 1913 I was statistician of the Boston & Albany; between 1913 and 1914, President's Assistant, New York, New Haven & Hartford; 1914-1916, President's Assistant, Boston & Maine Railroad; 1918-1919, Manager of Operating Statistics and later Assistant Director of Op-

[fol. 1676] erations of the United States Railroad Administration.

As to University work, I was appointed lecturer on railroad operations when the business school was established in 1908 and in 1910 I was appointed Assistant Professor of Transportation under an arrangement which permitted me to work part time for the railroads.

In 1916 when I was appointed to the James J. Hill professorship of transportation, I gave up all active railroad work and have since been connected with railroads only occasionally in special work. In the original New England Divisions Case, and the subsequent hearings of the Central Railroad of New Jersey, the Delaware & Hudson and the Erie, I was principal statistical witness for all the New England Railroads. I also appeared as a statistical witness for the New England Railroads in the Eastern Class Rate Case.

In 1921, I think it was, I was employed as a special assistant to the Interstate Commerce Commission when they were studying the question of honesty, efficiency and economy, means of checking it, and out of that work has grown the Commission's annual statement of operating averages. My courses in Harvard University include those in railroad operations, railroad organization and railroad accounting.

My appearance as a witness in this case is the result of a request from representatives of the railroads in Official Classification territory to make a statistical study of the [fol. 1677] accounting reports rendered to the Interstate Commerce Commission by Class I carriers in Official territory, and in Southern territory, for the purpose of ascertaining the relative transportation conditions in the two territories as reflected by the statistics shown in those accounting reports. Specifically I was asked to work out, if practicable, common denominators for traffic density, length of haul, average car load, carrying charges on investment and other similar things which affect operating revenues, operating costs and net income, so that the differences between the southern and the eastern territories in such factors might be measured individually or in the aggregate.

After a study of the available data I concluded it is impracticable to measure separately the effect of any one

of the several factors upon average revenues and average costs. The effect of those which are favorable is obscured by the effect of those that are unfavorable. There is no practicable way to contrast definitely the effect of any one such as, for example, the density of traffic. If we had a set of conditions under which, as between two regions of different traffic densities, there were approximate uniformity in all other things, such as the nature of the traffic—that is, in the relative proportions borne by each class of commodity to the total and the proportions of local and interline tonnage—and approximate uniformity also in the length of the [fol. 1678] haul, in physical and climatic conditions, and investment in road and equipment, it would be possible, for example, to place a value on the single factor of traffic density as an element in inclusive cost. No such constancy, however, exists in this case, nor, indeed, in any case known to me. It is possible, however, to measure approximately the composite effect of all factors. This however, is reflected in the total ton mile revenues, total ton mile costs, net railway operating income per ton mile and its relation to property investment. I have made a series of computations from which such comparative data are summarized in the exhibits which I now offer in evidence.

(Said Documents, so offered, were received in evidence, marked "Exhibit 302, Witness Cunningham".)

The exhibit consists of four sheets, the first of which is a summary of the detail which appears on sheets 2 to 4 inclusive. My figures cover the entire decade, 1921 to 1930, inclusive. That period begins with the first complete year under the rate advance of 1920 and ends with the first full year of the current depression. It is not possible to extend the computations beyond 1930 as the basic data for the division of operating expenses are not reported monthly.

The significant figures for each year are given on sheet 1 and they are totaled and averaged in the last three col- [fol. 1679] umns, the first for the five years, 1921 to 1925, inclusive; second, for the five years, 1926 to 1930, inclusive, and the third, for the entire decade.

The basic data used in these computations, shown on pages 2, 3 and 4 of the exhibit, are taken almost entirely from the annual statistical reports of the Interstate Com-

merce Commission, Statement No. 55. In a very few cases, where the information is not available in the Commission's reports, such as freight proportion of operating expenses, fuel consumption by classes of service and property value, I have used the figures of Dr. Parmelee's Exhibit No. 2 for the railroads in Ex Parte 103. His figures were compiled by the Bureau of Railway Economics from copies of the returns made by the railroads to the Commission. The source of the data and the derivation of each unit, average or percentage in my exhibit are given in the second column of each sheet. While no exception can be taken to the basic data because they are compiled and reported as required by the Commission, a certain amount of apportionment, more or less arbitrary, could not be avoided in dividing joint revenues and joint costs between the freight and passenger services respectively.

My aim has been to assign or apportion the grand total of all revenues, expenses and other costs in each of the two territories so that each of the two classes of service is [fol. 1680] credited with its total share of revenues and charged with its total share of operating expenses, taxes, rents for joint facilities and equipment. The difference between the total revenues and the total costs is taken as the net railway operating income earned in each of the two classes of service. The total operating revenues from the freight service divided by the total revenue ton miles gives the average freight service revenue per revenue ton mile. Likewise the total freight service costs, as later defined, are used as the basis for the freight service costs per revenue ton mile, the difference between the two being the net railway operating income per revenue ton mile. These first two units, revenues and costs, reflect in total, the effect of differences in rates and operating costs and afford partial answer to the question of the relative situation of the carriers in the two territories. That is to say, the average revenue per ton mile and the average costs per ton mile, include the sum total of the effect of divers factors, such as density of traffic, length of haul, average car load, percent loaded, of total car miles, climatic conditions, and efficiency of labor, and any other of these numerous operating and traffic factors.

I am here using the term "cost" as embracive of all elements which enter into the computation of net railway

operating income. The costs as computed here include ope-
[fol. 1681] rating expenses, taxes, uncollectible railway revenues and the net balances for hire of equipment and joint facilities. They do not include a return on the investment nor interest charges and rentals, nor do they include any occasional adjustments for retirements and other things in the profit and loss account. The latter are indeterminate and even if known would be so small as to be negligible in effect, inasmuch as these are average costs they may or may not be applicable to any particular class of traffic on any particular railroad. However, I have referred to the average freight revenues per ton mile and average freight service costs per ton mile. We may not stop, however, with these units. It is necessary to go further and relate these units to the property investment. This is done by apportioning the property investment to the two classes of service, freight and passenger, and computing for each territory the rate of return in each of the two classes of service. I will later explain the method followed in making this apportionment.

The significant figures in the exhibit are in items 16 to 21, revenues, costs, and net revenue per ton mile for the east. That is, items 16 to 21 for the east. Items 37 to 42 for the south, and items 43 to 48, giving the percentage relationship of the south to the east.

It goes without saying that the validity of the compara-
[fol. 1682] tive units depends in part on the soundness of the basis of assignment and apportionment of revenues, costs and investment. As to revenues, there is little question.

To the freight service has been credited the revenues from transportation of freight, switching, storage of freight, demurrage on freight cars and the gross earnings from grain elevators and stock yards.

To the passenger service has been credited the revenues from the transportation of passengers, mail, express and milk, as well as those from excess baggage, sleeping and parlor cars, dining and buffet cars, hotels and restaurants, station, train and boat privileges, parcel rooms and storage of baggage. To these totals directly assigned to each of the two classes have been added unassigned revenues in proportion to the percentage that the assigned revenues of each class bear to the total assigned. The unassigned

revenues consist of those from special trains, telegraph and telephone, sale of power, rents of buildings, etc., joint facilities and miscellaneous. Their total is but a trifle more than one per cent of all operating revenues.

With respect to costs, the operating expenses are assigned and apportioned to the two classes of service according to the formula prescribed by the Commission. Dr. Parmelee's Exhibit No. 2 in Ex Parte 103 gives the freight proportion of total operating expenses by regions. I have [fol. 1683] used his figures because the Commission's annual report does not contain the data for the individual railroads and the Commission's summary by districts places the Pocahontas Region roads in the southern district. The difference between the freight proportion of operating expenses computed for each region by the Bureau of Railway Economics from the carriers annual reports to the Commission, and the total operating expenses as shown in the Commission's annual report, is taken as the passenger service proportion of the operating expenses. That basis is not entirely accurate as it charges all of the undivided operating expenses to the passenger service. The method was used because the regional distribution of the total of undivided expenses is not available to me. The amount of undivided expenses, however, is negligible, about one-tenth of one per cent of the total, and inasmuch as the same basis is used in both territories, the discrepancy has no appreciable effect on the comparative averages.

In arriving at total freight service costs, I have taken the freight service proportion of operating expenses and have added thereto the net debit balance for freight car hire, and the total of uncollectable railway revenues. Then to taxes, rents for locomotives and equipment, other than freight and passenger cars, and joint facility rents, I have applied the freight proportion of operating expenses and [fol. 1684] added the results to the assigned costs already mentioned. The effect is to charge the freight service with its assigned operating expenses and its operating expenses proportion of taxes and other joint costs.

The same process was used in computing the costs of the passenger service. To its assigned operating expenses were added the net debit balance for passenger car hire and its operating expenses proportion of taxes and other joint costs.

For the freight service in each of the two territories the costs which have been arbitrarily divided on the basis of assigned operating expenses are about eight per cent of the total costs. They, therefore, have no substantial effect upon the total and the units derived therefrom.

The details on sheet 4, items 177 to 188 and 209 to 220, show that I have made an adjustment in the total costs of each class of service by charging the passenger service and crediting the freight service with the estimated cost of the passenger service proportion of non-revenue ton miles. The non-revenue tonnage is principally in company fuel, of which a substantial part is burned in passenger service. The entire cost of moving such tonnage, however, is included in the cost of the freight service.

In the New England divisions case I made such an adjustment and I think it should be made in this case. The [fol. 1685] basis of apportionment is the relative amount of fuel consumed in the two classes of service. Of the total fuel consumed in road service approximately 27 per cent is in passenger service. As between the two territories the percentages are approximately the same, the average difference between the south and the east being 1.5 points in percentage. I have applied the fuel percentage to the total non-revenue ton miles and taken the result as the passenger proportion. Then I have computed the total cost per net ton mile revenue and non-revenue combined and multiplied it by the passenger proportion of non-revenue ton miles to get the cost. The result is then deducted from the freight service costs and added to the passenger service costs. The effect is to reduce the freight service costs about two per cent and to increase the passenger service costs about 6 per cent.

The principal question concerning the validity of my comparison of the rate of return on investment in each of the two classes of service relates to the apportionment of the property investment or value. In the very nature of things it is impossible to say what part of the investment in road and equipment is for the freight service and what part is for the passenger service, and the Commission has not, to my knowledge, approved any formula for that purpose. For the southern lines Witness Lamb in effect used the basis of operating revenues when he bases his compari- [fol. 1686] son on traffic units, inasmuch as the three-to-

one ratio of passenger miles to ton miles is based on relative unit revenues. Mr. Lamb, however, subsequently at page 1538 of the record specifically condemns the revenue basis.—I agree with Mr. Lamb in that conclusion. In my opinion, the use of a revenue basis for dividing investment in a case wherein the revenue itself is involved, is objectionable. It is not as defensible as the operating expense bases which I use here and previously used before the Commission in the New England divisions case.

Dr. Lorenz, director of the Commission's Bureau of Statistics, used that basis for dividing investment return in his 1930 study entitled "Territorial Variation in the Cost of Carload Freight Service on Steam Railways in the United States for the year 1928".

My opinion is that the operating expense basis for apportioning the investment has fewer objections than any other basis for cases of this kind and that it may be employed in this case to show approximate comparative results. In effect roughly it divides the investment in both territories three-quarters to freight and one-quarter to passenger. At this point I want to call attention to the fact that items 10 to 12 and 31 to 33 "per cent costs of revenues", do not correspond with the conventional operating ratio. The operating ratio is the per cent of operating [fol. 1687] revenues taken by operating expenses; taxes, uncollectible revenues and rents of joint equipment and facilities are not included. My figures include all costs as previously defined and they are, therefore, higher than the operating ratios. For the purpose of this case a ratio including taxes, equipment, rents and other joint costs, is more significant than a ratio confined entirely to operating expenses.

Attention is also called to the fact that items 16 and 37, "freight service revenues per revenue ton mile" do not agree with the conventional unit "freight revenue per revenue ton mile". The latter takes into account only the revenues from the transportation of freight while my figures include also the revenue from switching, demurrage, storage and other freight service activities, as well as a proportion of the small amount of undivided revenues. Inasmuch as the costs are affected by switching, demurrage and other freight service items, it is desirable, when relating ton mile costs with ton mile revenues, that the latter should

include all freight service revenues that bear upon costs. The difference between conventional unit "freight revenue per ton mile" and my unit "freight service revenues per ton mile" is indicated by the fact that in the eastern district, including the Pocahontas region, the 1930 average freight revenue per revenue ton mile was 0.998 cents while my average is 1.035 cents. The comparable figures for [fol. 1688] the south are 1.082 cents and 1.110 cents. The difference between the two units is greater in the east than in the south—3.7 per cent in the east and 2.7 per cent in the south. That is, for this particular year of 1930, which I have taken for an example. That difference probably is because of the greater amount of switching and other accessorial service in the east.

Having described the scope and the purpose of the study and explained the methods, I shall now comment upon the significance of the results. The figures on sheet 1 indicate that—

First, the ratio of total freight service costs to total freight service revenues, items 10 and 31, is lower in the south than in the east. During the first five year period the southern ratio was 80.91 per cent, while in the east it was 83.91 per cent. During the second five year period the ratio in the south was 75.19 per cent and that in the east was 76.84 per cent. For the ten years the figure for the south was 77.96 per cent and that for the east was 80.25 per cent. The southern roads, therefore, have been able to earn more net out of each revenue ton mile. How much more is shown in items 18 and 39, to be referred to later.

Second, the total freight service revenues per ton mile in the south are higher than those in the east. The excess [fol. 1689] in the south over the east was 2.77 per cent in the first five year period, 5.43 per cent in the second five year period, and 4.25 per cent for the entire ten year period. Those figures are shown in item 43.

The freight service ton mile revenues in the south, except for 1922, have been somewhat higher than the corresponding ton mile revenues in the east. They were substantially the same in 1922, 1.152 cents in the south and 1.154 cents in the east. There have been progressive reductions in the ton mile revenues in both territories during the entire ten year period, but the degree of reduction in

the south has been less than in the east in every year except 1922, 1927 and 1928. The average for the south in 1930 was 1.110 cents while that of the east was 1.035 cents, an excess of 7.25 per cent in the south over the east.

Third, the cost per ton mile in the south is now greater than that of the east but the excess cost in the south is relatively less than the excess revenues. During the first five years of the decade the southern ton mile cost was approximately one per cent less than the east, while the southern ton mile revenues were 2.77 per cent greater than the east. Since 1924 the southern cost has been greater than the east cost, the excess cost in the second five year period having been 3.23 per cent. But the southern excess in revenues per ton mile were even greater, 5.43 per cent. For the [fol. 1690] entire ten year period the south's excess over the east in revenues per ton mile was 4.25 per cent, while its excess in cost was about 1.15 per cent.

Fourth, inasmuch as the excess of ton mile revenues in the south is greater than its excess ton mile cost, it follows that the net railway operating income per ton mile is greater in the south than in the east. During the first five year period, the net railway operating income per ton mile was 2.20 mills in the south and 1.80 mills in the east. The southern excess over the east was 22.22 per cent. During the second five year period the southern excess was reduced but was still substantial. Its net railway operating income per ton mile was 2.74 mills while that of the east was 2.43 mills, an excess of 12.76 per cent in the south over the east. For the entire decade the south's excess in net railway operating income per unit of freight traffic was 16.90 per cent.

Fifth, the fact that the net railway operating income per ton mile is substantially greater than that of the east indicates clearly that the lower traffic density and other adverse operating factors which increase operating costs are recognized and more than compensated for by the existing freight rate levels.

Sixth, it is not proper, however, to stop at net income per ton mile. The factor of investment must be considered. [fol. 1691] We must ascertain whether under the south's low traffic density there is a greater investment per ton mile than in the east and whether in spite of higher net

income per ton mile the return on the southern investment is less favorable than in the east. The answer is found in items 19, 40 and 46. The first is the eastern rate of return in freight service; the second is the southern rate of return in freight service, and the third is the percentage borne by the southern to the eastern rate of return in freight service. We find that the eastern rate of return in freight service during the first five year period was 4.994 per cent while that of the south was 6.157 per cent. In the second five year period the comparable figures were 6.678 per cent in the east and 7.038 per cent in the south. For the entire decade the eastern rate of return was 5.895 per cent and that of the south was 6.640 per cent. During the first five years the south exceeded the east in freight service rate of return by 23.29 per cent; in the second five years period the excess was reduced to 5.39 per cent. For the entire decade the excess in the south was 12.64 per cent. In only one year, 1929, was the southern return less than that of the east. The figures relating to the net railway operating income per ton mile indicate that the south is in a much better position than the east and the figures relating to return on investment during the past five years, while indicating a [fol. 1692] shrinkage in the southern return over the east, shows that the south is still better off. In referring to return on investment I mean return on investment in the freight service only.

Seventh, the relatively low rate of return in the south on the total investment, considering together the freight and passenger services, is due almost entirely to its heavy losses in the passenger service. Since 1925 the revenues from the passenger service in the south have not been sufficient to cover operating expenses and the passenger service proportion of taxes and other joint costs. The return on the southern passenger investment in 1925 was 1.947 per cent. Since then there has been no net railway operating income from passenger service and the deficit has been equivalent in the second five year period to a loss of 2.787 per cent on the passenger investment. In the east the rate of return in the passenger service has been much lower than that in the freight service, but the passenger service in every year except 1930 has at least met all of its assigned and apportioned costs. The eastern passenger service rate of return on investment in the first five year period was 2.690 per

cent; in the second five year period it was 0.778 per cent, and, for the entire decade, it was 1.656 per cent. The eastern loss in passenger service in 1930 was equivalent to 1.218 per cent on the passenger investment, while the corresponding figure for the south was a loss of 4.966 per cent.
[fol. 1693] On page 4 of my exhibit 302, items 219 and 220, the source reference 186 should be 218. The 186 applies to the other region. It should be 202.218 instead of 202.186. That is 219 at the bottom of sheet 4.

Cross-examination.

By Mr. Gwathmey:

The results which are displayed in this study which I have submitted reflect to some extent relative differences in the costs of handling individual commodities. Your question as put was too strong. If you say do they effect, without adding "to any extent" I would go along with you and say they do not; but it would be going too far to say that they do reflect to any extent. They reflect to a very slight extent. That is accidental. It might or might not. It would depend. If the traffic that you have in mind was an average traffic, at average costs, and average revenue, then that statement reflects the comparative condition. If, however, the commodity or service you have in mind was not an average service, then this might not reflect the conditions.

The averages that are shown here are the composite effect of handling low grade commodities and high grade commodities and as between the two regions the average would be affected by the relative volumes of sand, citrus [fol. 1694] fruit, and so forth.

I understand that we are here immediately dealing with the matter of the divisions of rates on citrus fruits moving out of Florida but my understanding is that we are dealing also with the question of divisions on all traffic and this has perhaps a greater bearing on the broad question of divisions on all traffic than it would have on the divisions in the case of citrus fruit. The significance of these figures would be just as great for sand as for citrus fruit. They would not reflect in any way the difference in the cost of handling or the revenue derived from sand, on the one hand, as compared with citrus fruit on the other. They would

not show the difference between the commodities of different character. It is average figures. The average revenue per ton mile and the average costs per ton mile must reflect the effect of the different make-up of traffic; that is, the ton mile revenue would be reduced by a larger proportion of sand and ton mile costs would likewise be reduced by a large proportion of sand or conversely would be increased by a large proportion of citrus fruit.

When you say that this exhibit reflects nothing except the averages for the handling of all traffic of all descriptions moving between the south, on the one hand and Official Territory on the other; I do not like the way you put the question, that it reflects nothing. I think it reflects a great deal [fol. 1695] but it does reflect conditions. It shows the effect of intraterritorial and local traffic both combined. The relative volume of such movement intraterritorially in the south as compared with the east would affect the figures shown in this exhibit. If the intraterritorial traffic in one region had a longer haul than in the other and it was a larger proportion of the total, it would have an effect upon the comparative showing.

The relative level of the intraterritorial rates on different commodities which are reflected in the revenue derived on different commodities, would have a bearing on the figures shown in this exhibit.

I have not made a study of the relative volume of high grade tonnage as compared with low grade tonnage to determine what the relationship between the Official Territory and the south is in that respect. The information is available in the reports of the Interstate Commerce Commission but I would not like to give an opinion on that without consulting the figures. I have not considered what proportion of the intraterritorial tonnage in Official territory is merchandise traffic as compared with coal or other traffic of that sort. I have not given any consideration to that, except whatever effect it has upon my figures. It is there; it is reflected there. I have not made any study of that sort in respect to the intraterritorial traffic within the south. I [fol. 1696] have no knowledge of the character of the traffic that moved intraterritorially between the south and Official territory. That will apply just as well to interterritorially as to the intraterritorially. My figures are confined to the sum total of all traffic.

N. S. MENAUGH, having been recalled, further testified as follows:

Examined by Mr. Eshelman:

I am familiar with the testimony given at the last hearing concerning schedules. I have prepared a statement in response thereto.

When considering a change in an established freight train schedule proper weight must be given to the conditions and demands which are to be met at terminals as well as what must be overcome on the road. And when a schedule is one that governs the movement of perishable commodities, the final terminal requirements become of the highest importance, since all previous efforts in the movement have been performed with the one end in view; namely, of transporting the freight on time, in proper condition, and in sufficient quantity to permit of the marketing of same. If there should be any failure of the terminating road to complete [fol. 1697] its share of the burden at the marketing terminal all other efforts leading thereto would be of no purpose.

Hence it is that the action of the Pennsylvania Railroad in undertaking to make delivery of perishable freight at New York to a market calling for 9 P. M. service when previously the hour was 3 A. M. of the following day, was one of major importance. As I have said in previous testimony, this action was taken prior to the promulgation of the present schedules. We do not contend that the change was made immediately prior to nor directly subsequent to September 29, 1930, when the schedules under discussion were made effective. It was, however, made subsequent to the establishment of the post war schedules.

But we do insist on pointing out, what every operating man must concede, that in setting up of the present schedule and in determining what proportion of the shortened time element the Pennsylvania Railroad should assume, the time available at the delivering terminal—for proper classification, for icing, for shifting, for the floating, unloading and what not, in zero weather or temperate conditions, in foggy atmosphere as well as clear days—was a vital factor. A reduction of six hours in that terminal time already in effect had a direct bearing on the latest hour at which trains might arrive at final terminal. The Pennsylvania Railroad could have consistently demanded that the arrival time at

[fol. 1698] Jersey City be set back so that the same time would be available in which to accomplish the terminal handling as was in effect during the 3 A. M. market requirement, in which event the southern roads would have been obliged to absorb not only the twenty hours and fifteen minutes road time but in addition thereto at least a considerable share of the six hours terminal time. Actually, however, the Pennsylvania Railroad assumed the six hours at the terminal and three hours forty-five minutes road time. Why more road time was not absorbed has been covered in previous testimony.

In so far as Witness Kendall's testimony at Washington on October 20th is concerned, it shows conclusively, pages 1322 to 1324 of the transcript, that the 3 A. M. original market hour, page 1322, was finally reduced to 9 P. M., page 1324. His citation of extracts from Mr. Downes' letters of various dates regarding a particular commodity, strawberries, in an effort to show that the 11 P. M. market at Jersey City and 1 A. M. at New York, for that commodity, were in effect during the period which the southern carriers used for comparing the schedules; namely, 1928-1929 season with 1930-1931 season, and leaving the intimation that consequently the Pennsylvania Railroad could not have absorbed the six hours' time is but to becloud the issue. What we have been treating and what the southern carriers have heretofore been advancing, orally and by exhibit, and [fol. 1699] what Mr. Kendall refers to on page 1324 where he quotes Mr. Downes' letter of May 2, 1930, is the schedule now leaving Potomac Yard at 7:45 A. M. and arriving at Harsimus Cove at 7:30 P. M.; in other words, Pennsylvania Railroad train MD-12, which is not a strawberry train. Mr. Downes' letter of December 23, 1929, in the first two paragraphs as quoted by Mr. Kendall, pages 1322-1323, had reference solely to strawberries from North Carolina. The remaining portion of the letter as quoted, and which is in no way whatever connected with the market hours mentioned in the beginning, dealt with the schedule now under discussion (MD-12). An entirely separate and distinct schedule was set up for the movement of strawberries, worked out to meet the demands peculiar to this traffic.

In connection with this same matter of schedules, the southern carriers have contended that their absorption of 20 hours 15 minutes as against the northern railroads 3 hours 45 minutes was a heavier burden than they should

have had to assume. While we have answered this argument in previous testimony, because of the further statements on this subject in their behalf, we desire to offer a further analysis of the subject here.

In the absence of an exhibit or detailed information in the testimony of the A. C. L. R. R. operating witness, we are unable to make an intelligent deduction for that road. [fol. 1700] However, Exhibit No. 74, filed by Witness C. E. Hix of the S. A. L. Ry. shows various schedules in effect from pre-war days to date. It is this exhibit, along with Mr. Hix's testimony, that is the basis of the analysis. The exhibit contains a slight error in the post-war schedule. The arrival time at Jersey City should be shown at 6:45 P. M. instead of 5 P. M.

An analysis of the post-war schedule shows that a total of 25 hours 10 minutes of the total time of 67 hours 30 minutes used by the S. A. L. Ry. was consumed in terminals en route Palmetto to Richmond, while the present schedule, under a similar scrutiny, indicates but five hours and 40 minutes of the total elapsed time of 47 hours 30 minutes was used in terminals. In other words, 19 hours and 30 minutes of the 20 hours reduced time was obtained by eliminating terminal time, leaving but 30 minutes taken up in the road movement as against 2 hours and 15 minutes' road time absorbed by the Pennsylvania Railroad alone, as well as the six hours terminal time at destination—not included in schedules shown on the exhibit—as hereinbefore described, not overlooking the fact that these six hours were eliminated prior to the promulgation of the present schedule and without cooperation on the part of the complainants.

Taking the testimony of Mr. Hix, pages 268-370 as a basis, along with Exhibit No. 74, we have ascertained comparative [fol. 1701] road speeds, as follows:

Comparison of average road speeds—miles per hour excluding terminal time

	Present Schedule	Post-War Schedule	% Increase
S. A. L. Ry.	21.6 miles per hr.	20.8 miles per hr.	3.8
R. F. & P.	17.6 " " "	17.8 " " "	—
P. R. R.	22.5 " " "	17.9 " " "	25.7

Attention is directed to the greater percentage increase in the road speed on the Pennsylvania Railroad as compared with the S. A. L. Railway. At that time, under the post-war schedule, the total elapsed time from the time of

departure at Potomac Yard to the market hour was 23 hours and 30 minutes. Under the present schedule it is 13 hours and 15 minutes. The amount of time taken out of its schedule by the Pennsylvania Railroad from departure at Potomac Yard to market hour at New York is 10 hours and 15 minutes. When, therefore, consideration is given to the prior absorption of six hours at final terminal, as discussed before, and the above analysis of the road performance, and then with this in mind review as well the operating conditions between the southern and northern lines, all a matter of record, it is evident the Pennsylvania Railroad has participated to the fullest extent in the shortened schedule.

I have also examined the testimony of the southern operating witnesses with respect to the making of repairs to [fol. 1702] cars loaded with perishables en route to facilitate their movement. We have a similar condition on the Pennsylvania Railroad. The Southern railroads have laid particular stress on the special care provided for the rapid repairs to cars loaded with perishable when made bad order while en route.

There is no laxity in this respect on the Pennsylvania Railroad. A car containing perishable freight, whether crippled and set off along the road or determined in bad order condition by inspection at a terminal, be that an initial, final or intermediate yard, is given preferred attention. To a car set off on the road at a point where a repair force is not located there is sent by first possible movement—passenger or freight train or even by truck or automobile—such repair force as is required for placing the car in condition for movement in the next train. If within a terminal or at any other point where car repair forces are maintained, such repairs are made to the car immediately, the endeavor being to complete same so that such car will be dispatched in the same train on which it arrived, or if that is impossible because of the extent of the damage then in the next movement. In other words, there is a concentration of effort on cars loaded with perishable freight to see that there is no unwarranted delay.

[fol. 1703] Cross-examination

By Mr. Gwathmey:

I do not recall the exact words but in principle I said something about operating double-headed trains loaded

with perishables out of Potomac Yard going north because our northbound trains out of Potomac Yard are practically all operated with two engines. They are not double-headed. There is one on the front end and one on the rear end. We operate two engines on those trains in order to take care of the grade situation, the severe grades that we have between Potomac Yard and Baltimore. The number of cars that we handle on the average in those perishable trains is entirely dependent upon the volume of business that is offered to us to be handled. With business the way it is now those trains are not loaded to full engine rating for two engines; nevertheless they are loaded over one engine rating which necessitates the use of the second one on it. I would not like to make a guess at the number of cars we handle in those trains out of Potomac Yard during the height of the perishable shipping season out of Florida because it varies and I do not have any definite figures with me. We run as many as a hundred cars on some trains. I do not think we run as many as a hundred cars very frequently because the business has to be extremely heavy to provide a 100-car train owing to the diversified classifica-
[fol. 1704] tions we have to make out of Potomac Yard on all of that northern business. During the height of the perishable season they vary from 50 to 100 cars.

ARTHUR F. MCSWEENEY was recalled and further testified as follows:

Examined by Mr. Eshelman:

Since the last hearing I have had occasion to examine the testimony of Mr. C. H. Mitchell of the Southern Railway. In connection with his testimony concerning the interchange of citrus fruit between the Southern Railway and the Pennsylvania at Cincinnati I have made some investigation to develop further facts. I have made a study covering the period from December, 1930, to March, 1931, inclusive, and during that period we received 480 cars of citrus fruit from the Southern Railway at Cincinnati. The regular interchange yard for traffic generally between the Southern Railway and the Pennsylvania at Cincinnati is our Undercliff Yard. I testified there was an arrangement because of

the necessity of speeding the schedule whereby often that interchange was at Vine Street Yard.

During this period on nine trips of the Southern Railway they handled 22 cars of citrus fruit to our Undercliff Yard of the total of 450 that were received during that [fol. 1705] period. The Pennsylvania handled during this period a total of 428 cars by our crews to our Undercliff Yard. Of the 428 cars received from the Southern Railroad during this period, we received or picked up 388 cars at the interchange point at Vine Street with the Southern Railroad. The other cars were handled on our regular interchange crews between McLean Avenue yard of the Southern Railroad and the Undercliff yard, there being a total of 40 cars handled on 12 trips of our crews from McLean Avenue to the Undercliff yard. McLean Avenue yard to Undercliff yard is the farthest away from the Pennsylvania, being approximately 9.4 miles and the Vine street yard I would say was about 6 miles. In other words, it is about three miles from the Southern McLean Avenue yard to their Vine Street interchange with the Pennsylvania Railroad. It is necessary to go to Vine Street to get this traffic instead of having it all delivered by the Southern Railway at Undercliff, I would presume, on account of the scheduled arrival time of the Southern train and the delivery made to us at Vine Street is necessary for us to make special moves to Vine Street Yard to protect our outbound noon connections. In order to get these 388 cars at Vine Street it was necessary for the Pennsylvania to make 85 trips to Vine Street. The Southern Railway during this period made 96 trips to the Vine Street yard. During this period there were nine regular Southern interchange or [fol. 1706] transfer crews from McLean Avenue to the Pennsylvania at Undercliff yard. The Southern crews handled perishables into our Undercliff yard in nine trips. During this period there were twelve regular Pennsylvania Railroad transfer crew trips for perishables direct from McLean Avenue to Undercliff. Of the 85 trips made from Vine Street yard to our Undercliff yard by the Pennsylvania Railroad engines, there were 23 necessary to protect connection with our trains F-C-2 to Cleveland and C-O-3 to Chicago. We made the other 62 trips to Vine Street for the reason that the Southern advised us on the delivery of

perishables to our line at Vine Street that it was necessary for us to send an engine to protect the connections, not knowing at all times the final destination of all cars. Of the nine trips made by the Southern regular interchange runs to our Undercliff yard, handling a total of 22 cars of perishables, four of these trips made connections with our noon train. One of them missed the connection for the reason of its late arrival at our Undercliff yard, and for that reason, as stated above, it is necessary that we make the additional special moves to Vine Street in order to enable us to protect those connections and also protect the markets at points in C. F. A. territory.

For the handling of the business through Cincinnati district we have given the Southern lines the latest possible moment as the closing hour when we can receive and get our [fol. 1707] trains out on time. For that one reason it does make a tight schedule for ourselves through the Cincinnati gateway.

I have collected data to show what some of our principal schedules out of Cincinnati to various C. F. A. destinations would represent in the matter of miles per hour. In reading the testimony of the Southern lines it was intimated they had to quicken up their schedules in miles per hour during the period of 1928-1929 and 1930-1931.

Mr. Eshelman: I have not as yet had time to put this sheet in proper exhibit form. We will ask indulgence to put it in a little later in proper form.

(Said document so offered was received in evidence, marked Exhibit 303, Witness McSweeney).

R. J. Doss was recalled and further testified as follows:

Examined by Mr. Gwathmey:

At the conclusion of the last hearing I had dealt in part with the divisions of the rates on citrus fruit to C. F. A. territory. I filed one or two exhibits. I have now prepared some additional exhibits and additional data that I wish to submit as bearing particularly on that feature of the [fol. 1708] case.

In my testimony at the first hearing of this complaint, held in Washington on May 11, 1931, I undertook, begin-

ning at record page 18, to estimate the amounts of reductions in the total revenues of carriers, resulting from the revision which became effective November 9, 1928. At that time, we estimated the movement from Florida to the destination territory specifically involved in I. C. C. Docket 24069, during the 1930-1931 season as 35,000 cars. The total movement for the 1930-1931 season to this destination territory was 38,000 cars. In order that the record may be complete, I want to now furnish the revised figures based upon movement of 38,000 cars during the 1930-1931 season instead of 35,000 cars which I previously used. That is to the east and New England. The reductions in the through rates on citrus fruit from Florida to the east, resulting from the revision of November 9, 1928, averaged $5.87 per car, which would make the total reduction on the 93,000 cars which moved on and subsequent to November 9, 1928, and including the 1930-1931 season $545,910. We estimate that the defendant carriers in Docket 24069 have retained since November 9, 1928, $13.07 per car more than they received out of the rates in effect prior to November 9, 1928. Consequently, they now have approximately $1,215,510 on the movement during the three seasons more than they [fol. 1709] would have received had the rates not been changed. Had the revised rates been divided upon a revenue prorate basis, i. e., percentages using divisions of former rates as factors, the eastern lines should have assumed approximately 21.45 percent of the total reduction $545,910 just mentioned, equivalent to $117,100. Adding this amount to the amounts which the defendant carriers have retained in excess of that which they would have received had the rates not been changed, the defendant eastern and New England lines, on traffic moving via the Virginia and Maryland gateways, now owe southern lines approximately $1,322,610.

As the settlements now stand, the southern lines have, on this movement since November 9, 1928, suffered a reduction in revenue amounting to $545,910, which is the entire amount of reduction in total revenue of all the participating carriers resulting from the Commission's order and, in addition, the amount of $1,215,510 which the defendant carriers have retained in excess of what they would have received out of the former rates, thus making the southern carriers losers of a total amount of $1,761,420.

At the postponed hearing of this complaint, held in Washington on October 20, 1931, at record page 1309, I filed my Exhibit No. 234, a printed statement consisting of 43 pages and showing in detail the movement of citrus fruit from Florida to Central Freight Association, Illinois Freight [fol. 1710] Association and Buffalo-Pittsburgh territories via the Ohio River gateways during the period November 9, 1928, to June 30, 1929, inclusive.

In rechecking the information as shown in this exhibit and in undertaking to balance the totals shown in the recapitulation on page 36 thereof with other exhibits which have since been compiled, we have discovered a minor error in addition.

The exhibit shows that on the movement from A. C. L. R. R. stations, the revenue of lines beyond Ohio River gateways, on basis old rates and divisions as factors, was $349,886.21. This figure should be $350,215.11, thus changing the total of this column for the three initial lines from $526,144.12 to $526,473.02. This results in changing the amount actually retained by northern lines in excess of amount which would have been retained had new rates been divided on basis of revenue prorate, using old rates and divisions as factors, from $57,706.20 to $57,377.30. I am speaking now of the lines north of the Ohio River. The average reduction per car resulting from the November 9, 1928 revision is $28.69. I am referring now to the cars covered by Exhibit 234, which were the cars that moved to Central Territory via the Ohio River gateway. The northern lines retained in excess of that which they would have received, had no change been made in the through rates, [fol. 1711] approximately $2 per car. The northern lines retained in excess of what they would have received, had the new rates been divided on basis of revenue prorate, $6.54 per car.

Since the through rates were revised, effective November 9, 1928, there have moved from Florida to Central territory via Ohio River gateways approximately 23,000 cars, divided: 1928-29 season, 10,000 cars; 1929-30, 7,000 cars; 1930-31, 16,000 cars. The total reduction resulting from the November 9, 1928, revision, applied to this movement at average reduction $28.69 per car, is $659,870.

We estimate that the Central territory carriers have retained since November 9, 1928, $2 per car more than they

received out of the rates in effect prior to November 9, 1928; consequently, they now have approximately $46,000 on the movement during the three seasons more than they would have received had the rates not been changed. Had the revised rates been divided upon a revenue prorate basis, the Central territory lines should have assumed an approximate reduction of $6.54 per car, which would have made their total participation on the estimated movement, 23,000 cars, $150,420. Adding this amount to the amount which the defendant carriers retained in excess of that which they would have received had the rates not been changed, the Central territory lines now owe southern lines approximately $196,420. I have used the expression "defendant [fol. 1712] carriers." These particular carriers are not defendants in the formal complaint case. It should read the "Central territory lines."

As the settlements now stand, the southern lines have, on the movement since November 9, 1928, suffered a reduction in revenue amounting to $659,870, which is the entire amount of reduction in total revenue of all the participating carriers resulting from the Commission's order and, in addition, the amount of $46,000 which the Central territory carriers have retained in excess of what they would have received out of the former rates, thus making the southern carriers losers of a total amount of $705,870.

The total amounts which the southern lines are losers on the movement since November 9, 1928, to Official territory approximate $2,467,290.

I file as my Exhibit No. 304, printed statement consisting of seven pages, which shows, as to the movement of citrus fruit from Florida to points in Central territory via Ohio River crossings during the period November 9, 1928, to June 30, 1929, inclusive, the weighted average hauls via actual routes of movement south of the Ohio River gateways, the total number of cars and the total weight transported from each origin, the total revenue in dollars and the weighted average proportions in cents per hundred pounds south of the Ohio River gateways, based on a revenue prorate, observing old rates and divisions as factors. [fol. 1713] As illustration, on sheet 1 of the exhibit, the movement from Alturas, Florida, is shown. One car moved via Route Li-6, which is explained on page 5 as the route via Seaboard to Richmond, C. & O. Ry. to Limeville: The

distance via route of movement is 1285 miles. Similar information is shown for the other 53 cars moving from Alturas. The average distance, 1152 miles, shown in the exhibit, is the weighted average haul on the total movement of 54 cars. The weighted average proportion accuring south of the Ohio River is shown as 90.3 cents per hundred pounds.

On page 5 of the exhibit it is shown that the weighted average haul for the entire movement, 8773 cars, from origin to Ohio River gateways via route of movement is 1084 miles. The average weight per car is 33,068 pounds, the weighted average proportion for the southern lines is 90.2 cents per hundred pounds and the weighted average per car mile revenue is 27.53 cents. That is not the through revenue; that is the weighted average revenue per car per mile for the southern lines up to the Ohio River gateways based upon dividing the new rate upon a revenue prorate basis.

I file as my Exhibit No. 305 printed statement consisting of four pages, which shows for this same movement of citrus fruit from Florida the weighted average hauls via actual routes of movement north of the Ohio River gateways, the total number of cars and total weight transported to each [fol. 1714] destination, and the total revenue in dollars and the weighted average proportions in cents per hundred pounds north of the Ohio River gateways, based on a revenue prorate, observing old rates and divisions as factors. For example, on page 1 of the exhibit is shown that of a total of 4 cars to Adrian, Michigan, 3 moved via Route Ci-67, 246 miles, and one via Route Ci-118, 300 miles. Route Ci-67 is explained on page 3 of the exhibit as via Cincinnati, Ohio, C. C. C. & St. L. to Toledo, thence New York Central beyond. Route Ci-118 is explained on the same page as being the route via Cincinnati, Ohio, C. C. C. & St. L. to Toledo, Ann Arbor to Pittsfield, Michigan, thence New York Central beyond. The weighted average haul for the 4 cars is shown as 260 miles and the weighted average proportion is 18.2 cents per hundred pounds. On page 3 of the exhibit it is shown that the haul beyond the Ohio River gateways on the total movement, 8773 cars, is 277 miles, the weighted average proportion 18.1 cents per hundred pounds, and the per car per mile revenue 21.7 cents.

That 277 miles is a weighted average. That is also true

of the figure 1084 in the preceding exhibit. Weighted average via the route of movement. The exhibit shows a total movement of 11 cars to East St. Louis and 153 cars to St. Louis but does not include the movement to either of these points in connection with southern lines such as, for [fol. 1715] example, Louisville & Nashville Railroad, Southern Railway, Mobile & Ohio Railroad and Illinois Central Railroad. The exhibit shows only the movement in connection with strictly Central territory lines. Of the total movement of 274 cars, 244 moved via Cincinnati. 197 of these moved beyond Cincinnati via B. & O. and 46 moved beyond Cincinnati via the C. C. C. & St. L. Railway.

By Mr. Gwathmey:

The movement to East St. Louis is on page 1 of the exhibit, the 111 cars shown in the last column. The movement to St. Louis begins at the bottom of page 2 and is concluded at the top of page 3.

While there is nothing in the tariff to prevent the movement of citrus fruit from Florida to St. Louis and East St. Louis via Cincinnati, the initial lines do not consider the Cincinnati route a normal one. In dividing the proportions north of Jacksonville via the normal routes, such as via Louisville in connection with the Southern Railway, Evansville in connection with the L. & N. and Cairo in connection with the Illinois Central Railroad and Mobile & Ohio Railroad, established percentages are employed. It is very seldom that through consigned shipments are handled to St. Louis or East St. Louis via Cincinnati, the movement via that point usually consisting of shipments which were originally billed to Cincinnati but which, on arrival at that point, were diverted to St. Louis and East St. Louis. [fol. 1716] The lines which handled these shipments from the Florida gateways such as Jacksonville and High Springs, up to the so-called short line gateways, Montgomery, Birmingham and Chattanooga, have been reluctant to accept lower proportions on shipments moving via Cincinnati than when moving via the routes over which through percentages are in effect, but in order to permit of the reconsignment of these shipments at Cincinnati, the lines south of Montgomery, Birmingham and Chattanooga have accepted subdivisions on basis of allowing the same proportions up to Cincinnati as accrue to other points in Cen-

tral territory, this proportion, Jacksonville to the Ohio River, being as of November 8, 1928, 61½ cents per box. The L. & N. and Southern, the principal lines handling the traffic into Cincinnati, have arranged a special basis for subdividing the proportions accuring north of Montgomery, Birmingham and Chattanooga on the shipments which are forwarded beyond Cincinnati to East St. Louis and St. Louis which, as of November 8, 1928, contemplated allowing beyond Cincinnati flat proportions of 17½ cents per box to East St. Louis and 19 cents per box to St. Louis. Because of our routes in connection with strictly southern lines to both St. Louis and East St. Louis, I probably should not have included in any of these exhibits the movement of 274 cars to St. Louis and East St. Louis. The continuation of the routes to these points in connection with strictly [fol. 1717] Central territory lines is, I think, dependent upon the establishment of mutually satisfactory divisions as between southern lines, such as the L. & N. and Southern, on the one hand, and the strictly Central territory lines, on the other hand.

I have prepared proposed percentages to and beyond the Ohio River gateways to be used in dividing the present through rates on citrus fruit from Florida to Central territory.

For convenience, the Florida origins have been grouped and I propose to observe same grouping of these origins in connection with proposed percentages to Central territory as was observed in connection with our proposed percentages to Trunk Line and New England territories. This grouping is shown on the map of the state of Florida which I filed as Exhibit 15 and in the statement which I filed as Exhibit No. 16, showing list of origins in Florida from which carload shipments of citrus fruit were made to destinations in Buffalo-Pittsburgh territory and east thereof during the period November 9, 1928, to June 30, 1929, inclusive, via Virginia and Maryland gateways.

It will be recalled that our proposed citrus fruit percentages to destinations in Trunk Line and New England territories, as reflected in my Exhibits 12, 13 and 14, followed the grouping of these destinations prescribed by the [fol. 1718] Commission in the Southern Class Rate Case, Docket 13494. In that case, the Commission did not prescribe corresponding groupings of points in Central territory. Consequently, in undertaking to work out our pro-

posed citrus fruit percentages from Florida to points in Central territory, I have, for convenience, undertaken to group this destination territory. This grouping has been made more or less arbitrarily, but with some regard to the first class rates published from Jacksonville to these points under I. C. C. Docket 13494 and also the location of the principal cities and the railroad layout.

I file as my Exhibit No. 306 a map of Central territory, on which the several proposed groups are indicated.

I file as my Exhibit No. 307 statement showing base points in Central Freight Association, Illinois Freight Association and Buffalo-Pittsburgh territories to which shipments moved via Ohio River crossings during the period November 9, 1928, to June 30, 1929, inclusive. The basis number assigned to each destination corresponds to the basis number shown on the map, my Exhibit No. 306.

I can best explain how our proposed citrus fruit percentages from Florida to Central territory were arrived at by first filing my Exhibit No. 308, consisting of two pages, in which I have shown from each origin group to each destination group, exclusive of the movement to St. Louis, [fol. 1719] Missouri, East St. Louis, Illinois, and Rochester, New York, the number of cars moving during the period November 9, 1928, to June 30, 1929, inclusive, the total revenue derived therefrom on basis of rates in effect November 9, 1928, and the revenue accruing to Central territory lines, using a revenue prorate, that is, percentages constructed upon divisions of the November 9, 1928, rates as factors. The information as to number of cars, total revenue and revenue north of the gateways is taken from my Exhibit No. 304. The exhibit shows in column "D" the percentage which the revenue north of the gateways on basis of revenue prorate is of the total revenue. For example, on sheet 1, it is shown that from Group 3, the Citra Group, to Group 515, Athens, Ohio, Group, the total revenue is $1,261.44. The revenue north of the gateways is $227.32, or, as shown in Column "D", 18 percent of the total. In Column "E" are shown the percentage proportions beyond the Ohio River gateways proposed by southern lines.

By Mr. Hall:

As indicated on my previous exhibits. The same percents run all through from east to west through those gate-

ways. That is the proposal. I will explain that in more detail later.

In Column "F" is shown the revenue which will accrue beyond the gateways on basis of applying the proposed percentages shown in Column "E" to the total revenue [fol. 1720] shown in Column "B".

The exhibit shows the total number of cars of each group, as well as the total of the three revenue columns "B", "C" and "F". On page 2 is a recapitulation of the proportions of lines north of the Ohio River gateways on revenue prorate basis and as proposed by southern lines with amounts of reductions and increases in revenues of northern lines. There is also a recapitulation of the total movement from each origin group with similar showing as to reductions and increases in revenues of northern lines.

It will be seen that the application of the proposed percentages will result in the lines beyond the Ohio River gateways receiving on the total movement, 8580 cars, $25.45 more than they would have received under a revenue prorate basis.

I now file as my Exhibit No. 309 statement consisting of one page in which are shown percentage proportions of lines north of the Ohio River gateways on basis of dividing present rates on revenue prorate basis; that is, percentages made by using November 8, 1928, rates and divisions as factors, compared with the percentages now proposed by southern lines for use in dividing the present rates. Where no percentages are shown in the revenue prorate column, there was no movement of citrus fruit from points in that group to points taking that rate basis number during the [fol. 1721] period November 9, 1928, to June 30, 1929, inclusive.

In the second column of the exhibit are shown the distances observed in publication of the Docket 15879 class rates from the nearest Ohio River gateway. For example, to the first destination group shown in the exhibit, Lawrenceburg, Indiana, Group 516, the distance is 22 miles from Cincinnati, the nearest Ohio River gateway.

During the test period there was no movement from origins in Groups 1, 2, F-2 and F-7. From some of the other groups, as for example Groups F-3, F-4 and F-8, there were shipments to only a few of the destination groups. The proposed percentages taking Group 1 origins, for ex-

ample, were arrived at more or less arbitrarily, but keeping in mind the percentages which southern lines proposed for use in dividing the present rates on citrus fruit from Florida to Trunk Line and New England territories, as shown in my Exhibit No. 18. The proposed percentages from Jacksonville, for example, allow beyond the Ohio River gateways 4 percent greater proportions than proposed from Group 2; the proposed percentages from Group 2 allow beyond the Ohio River gateways proportions which are 1 percent greater than proposed from Group 3. This same relationship as between the origin groups was suggested in connection with the southern lines' proposed percentages to the east.

Our proposed percentages beyond the Ohio River gate- [fol. 1722] ways to Central territory were arrived at with particular regard to the proportions accruing under revenue prorate basis, but they have been adjusted so as to reflect, in a way, the relative hauls beyond the gateways. One exception to the observance of the relative hauls beyond Ohio River gateways in arriving at the proposed percentages is found in the case of Buffalo. The proposed percentages beyond the Ohio River gateways to Buffalo are lower relatively than proposed to other points in Central territory where the hauls beyond Ohio River gateways are comparable. For example, we have proposed from Group 5 to Buffalo proportion of 19 percent beyond the Ohio River gateways. The distance beyond Cincinnati to Buffalo is 419 miles. To Madison, Wisconsin, 410 miles beyond Cincinnati, we propose beyond the gateways 24 percent, and to Petoskey, Michigan, 487 miles from Cincinnati, we propose 28 per cent. I will presently explain in more detail why we have made this exception at Buffalo.

The percentages which the southern lines are proposing are to be applied to and beyond the north bank crossings of the Ohio River, the expense of handling the traffic across the Ohio River being included in the proportions of the southern lines. I think we might reasonably have arrived at our proposed percentages by deducting the amount of the Ohio River bridge tolls from the November 8, 1928, proportions and using the stripped proportions to and beyond the Ohio River gateways as factors, with provision [fol. 1723] that the percentages thus arrived at be applied

to the through rate, first deducting the amount of the Ohio River bridge tolls. The method followed in arriving at the revenue prorate, as well as in arriving at our proposed percentages, really contemplate that the amount of Ohio River bridge tolls be reduced in the same ratio as the through rates were reduced, effective November 9, 1928, when, as a matter of fact, the bridge tolls applicable on Florida citrus fruit were not changed. The present allowances for Ohio River bridge tolls on Florida citrus fruit are: At Cincinnati 2½ cents, Louisville and Henderson 1½ cents, Paducah and Cairo 2½ cents. At Paducah and Cairo some of the lines contend that the proper allowance is 3 cents.

While in my Exhibit No. 309 I have shown the distances north of the nearest gateway, it is not with the idea that the proposed percentages are to apply only via such gateways. The proposed percentages are to be applied via the several gateways in the same manner and to the same extent as the divisions which were fixed as result of hearing before Interstate Commerce Commission in Docket 1,168, held in Washington, October 25, 1910, excerpts from the transcript of which were filed in this record as my Exhibit No. 102. As result of that hearing, the former through rates on citrus fruit from Florida to points in Central territory were divided by allowing uniform proportion of 41 [fol. 1724] *cents per box as of 1910 from Jacksonville*, from beyond, to the north bank crossings.

By Mr. Gwathmey:

When I speak of the former through rates, I mean the former through per box rates that were established in 1908, 1909 and 1910 and were in effect prior to November 8th, 1928, with the general increases and reductions. They were the same rates and divisions as were established in 1910 by the Interstate Commerce Commission.

The rates were changed effective November 9, 1928. Of course, this does not mean necessarily that the rate from Jacksonville, from beyond, to Cleveland, Ohio, for example, would apply via Cairo or Paducah. As a general proposition, rates and divisions were in effect only via the Ohio River crossings beyond which the Central territory lines were willing to accept the remainder of the proportional rate from Jacksonville, from beyond, and allow 41 cents

per box up to the Ohio River crossings in dividing. When I refer to a proportional rate of 41 cents per box up to the Ohio River crossings, I had in mind the rates that were established as a result of Docket 1,168 and before any increases were applied to them.

There are some exceptions to this basis as, for example, traffic moving to St. Louis and East St. Louis via Cincinnati [fol. 1725] and traffic moving to Buffalo and Pittsburgh via the Ohio River gateways. The general basis for dividing rates on citrus fruit, as well as on other traffic from Florida to points in Central territory, is to first deduct the proportions accruing to the Florida lines and the proportions accruing beyond the Ohio River gateways, remainder subdividing on percentages from Jacksonville and other Florida gateways to the Ohio River gateways. These percentages are so constructed that proportions of the lines which handle the traffic from the Florida gateways up to the so-called short line gateways, such as Montgomery, Birmingham and Chattanooga, receive uniform proportions, regardless of the route beyond such short line gateways. For example, the percentage proportions accruing from Jacksonville to Chattanooga are the same for all of the lines participating in the movement up to Chattanooga, and the proportions accruing beyond Chattanooga to Cincinnati, for example, are the same whether the traffic moves beyond Chattanooga via C. N. O. & T. P. Ry. or via the N. C. & St. L. and L. & N. The percentages further provide for an equalization as between the several Ohio River gateways. For example, on traffic from Jacksonville to Detroit, Michigan, the lines up to Chattanooga would be entitled to their maximum proportions which could be figured via either of the Ohio River gateways available to the Chattanooga route. On traffic moving via the Atlanta-Cincinnati line of the L. & N., the [fol. 1726] L. & N. is allowed beyond Atlanta same proportions as accrue north of Atlanta in dividing via Chattanooga.

I mention these facts because, in the evolution of the present basis for dividing the through rates from Florida to Central territory, there has, in the very nature of things, been an equalization as between the several groups of competing lines. The lines to and beyond the Ohio River gateways have had to accept uniform proportions. I have al-

ready pointed out that, in dividing the rates as of 1910, all of the southern lines received uniform proportion of 41 cents per box from the Florida gateways to all of the Ohio River gateways, regardless of the varying distances via the several routes. In like manner, the lines beyond the Ohio River gateways, if they participated in the traffic, were forced to equalize one gateway against the other as, for example, to Chicago, there was as of 1910 uniform proportion of 12 cents per box which applied from Cincinnati, 280 miles, and from Cairo, 265 miles.

At this point I will file my Exhibit No. 310, consisting of one page, which is a chronological statement of the rates from Orlando, Florida, and the divisional proportions beyond Ohio River gateways on citrus fruit, carload, to the principal consuming points north of these gateways. The exhibit shows the number of cars which moved to each of [fol. 1727] these destinations during the period November 9, 1928, to June 30, 1929, inclusive. The divisional proportions of the present rates which became effective November 9, 1928, are shown on basis of former proportions converted to per hundred pound basis, using 90 pounds per box, revenue prorate of former rates and divisions from Orlando, weighted average proportions on revenue prorate of November 9, 1928, to June 30, 1929, movement, and as proposed by the southern lines on traffic from Orlando, Florida. For example, to Akron, Ohio, the present through rate is 108 cents. The former proportion beyond the Ohio River gateways, converted to per hundred pound basis using 90 pounds per box, is 20 cents per hundred pounds; the proportion beyond the Ohio River gateways based on revenue prorate of former rates and divisions from Orlando, Florida, is 19.4 cents; the weighted average proportion beyond the Ohio River gateways on revenue prorate basis, as shown by my Exhibit No. 305, is 18.6 cents, and the proportion beyond the Ohio River gateways on basis of percentages proposed by southern lines from Orlando, Florida, is 18.4 cents per hundred pounds.

I call particular attention to the information shown in this exhibit as to the divisions via Ohio River gateways to Buffalo, New York, and Pittsburgh, Pennsylvania, and in this connection I ask reference to information shown in my Exhibit No. 37 and my testimony relating to Exhibit No. 37, [fol. 1728] beginning at record page 141.

From my Exhibit No. 310 it will be seen that as of September 30, 1905, the lines beyond Cincinnati accepted in dividing the through rates to Buffalo and Pittsburgh proportions of 14.8 cents and 14.4 cents per box, respectively. These proportions are substantially lower than accepted by the Central territory lines to other destinations in Central territory for much shorter hauls as, for example, to Chicago the proportion as of that date was 17 cents per box.

The through rates to Buffalo and Pittsburgh prior to September 15, 1908, were the same via the Ohio River gateways as via the Virginia and Maryland gateways, the rate from Orlando to Buffalo, for example, being 77.8 cents per box. The through rates via the Virginia and Maryland gateways were reduced, effective September 15, 1908, as result of the Commission's report and order in Docket 1,168, 14 I. C. C. 476, but the former rates were continued via the Ohio River gateways until, effective February 15, 1911, they were canceled, leaving no rates in effect via the Ohio River gateways. Effective November 15, 1912, the rates which had been established via the Virginia and Maryland gateways were also made applicable via the Ohio River gateways, the rates as of that date being from Orlando to Buffalo 68 cents and to Pittsburgh 67 cents per box. The application of the rates via the Ohio River gateways was canceled November 1, 1913, but was restored December 6, 1913. [fol. 1729] In dividing those rates, the lines beyond the Ohio River were allowed to Buffalo 13 cents and to Pittsburgh 12 cents per box. This allowed the lines from the Florida gateways up to the Ohio River total proportion of 40 cents per box, whereas, to other points in Central territory, they received 41 cents per box. However, in subdividing the proportions accruing from the Florida gateways up to the Ohio River crossings, the lines handling the traffic from the Florida gateways to the so-called short line gateways, Montgomery, Birmingham and Chattanooga, received revenue on basis of the 41 cents per box proportion. In other words, the shrinkage in the 41 cents per box proportion from the Florida gateways up to the Ohio River gateway routes was assumed, the southern lines handling the traffic north of the so-called short line gateways such as Montgomery, Birmingham and Chattanooga. It will readily be seen that the Florida lines having their own rails to the Virginia gateways were unwilling to shrink the pro-

portions which they would have received on other traffic going to Central territory in order to open up competing routes to Buffalo-Pittsburgh territory, via none of which they could expect to receive hauls as long as when the traffic moved via the Virginia and Maryland gateways.

I file as my Exhibit No. 311 a sketch consisting of one page, showing routes from the Florida gateways to the [fol. 1730] Ohio River gateways over which the 8,773 cars of citrus fruit moved from Florida to points in Central territory during the period from November 9, 1928, to June 30, 1929, inclusive. As will be seen from the lower right-hand corner of the map that of these cars the Coast Line brought out via High Springs 3,324 cars and via Jacksonville 2,485 cars. The Seaboard Air Line originated 2,402 cars, and the Florida East Coast 562 cars. The map shows in a general way the routes over which these cars traveled north of Live Oak and Jacksonville. For example, 35 cars went out via the S. A. L's. Jacksonville-River Junction line, 34 of which went north on the old G. F. & A. from Tallahassee to Richland. The A. C. L. forwarded a total of 497 cars via its Montgomery route, 1061 via Albany and Central of Georgia, 625 via Willacooche and G. & F., 858 via Jessup and Southern Railway, 101 via Savannah and S. & A., 100 via Yemassee and C. & W. C., 327 via Wadesboro and W. S. S. B., 180 via Petersburg and N. & W. and 21 via Richmond and C. & O. A few cars were delivered by the Coast Line to the G. S. & F. and Southern Ry. at Jacksonville. They were not routed by these carriers. Practically all of them are routed by shippers and these routes to which I refer are the ones over which the cars moved.

The Seaboard routed 585 of its cars via the Southern Railway from Everett, 672 via the S. & A. from Savannah, 840 via the M. D. & S. from Vidalia, 165 via Petersburg and [fol. 1731] N. & W., and 30 via Richmond and C. & O. In this connection, the route of the Seaboard Air Line from Savannah to Petersburg is shown via Fairfax, South Carolina, and Hamlet, North Carolina, when, as a matter of fact, the majority of the traffic to Hamlet was handled via the S. A. L's. alternate route through Charleston which is not shown on this sketch.

While a number of the cars moving from south Florida via the A. C. L. through Montgomery were actually handled via Waycross having first been billed to that point for diver-

sion and subsequently forwarded via Montgomery, we have, in figuring the distances shown in my Exhibit No. 304, for example, employed the short line distance via the A. C. L. from origin to Montgomery. On the shipments which the A. C. L. handled out via Jessup, the distances, where shown in my exhibits, are on basis of adding 11 miles to the short line distance via Folkstone and Nahunta. In this connection, please see my testimony beginning at record page 63 regarding the method of determining distances between Folkstone and Jessup as shown in my Exhibit No. 11.

It will be seen from my exhibit that of the total movement of 8,773 cars, there moved via Kenova 246 cars, via Limeville 310 cars, via Cincinnati 6,396 cars, via Louisville 362 cars, via Evansville 569 cars, via Paducah 86 cars and via Cairo 804 cars.

[fol. 1732] While I think of it, I want to mention one car of fruit that moved from West Frostproof, Florida, to Rochester, New York, shown on page 34 of my Exhibit 234 and on page 2 of Exhibit 305. This car ought not to have been included in this study because it seemed to have moved up through Cincinnati to some point where it was diverted to Rochester. Usually the rates from Florida to Rochester are not applied via the Ohio River gateways. It is not included in any of the other exhibits or studies other than the two which I have mentioned.

My next Exhibit, No. 312, is a sketch of the Central Freight Association lines, showing the number of cars of citrus fruit originating in Florida during the period November 9, 1928, to June 30, 1929, inclusive, which moved via Cincinnati. This sketch does not undertake to show the movement when it did not consist of 10 cars or more.

My Exhibit No. 313 is also a sketch of the Central Freight Association and Illinois Freight Association lines, showing the movement of fruit during the period which I have just mentioned via gateways other than Cincinnati. In other words, this exhibit shows the movement to Kenova, Limeville, Louisville, Evansville, Paducah and Cairo. The numbers shown along the lines represent the number of cars of citrus fruit handled between the junction.

My Exhibit No. 314, consisting of 3 pages, is an analysis [fol. 1733] of the movement south of the Ohio River gateways of the 8,773 cars for the purpose of showing the num-

ber of separate lines involved in the movement from initial point of shipment to the Ohio River gateways. In preparing this exhibit, the C. N. O. & T. P. has been considered as a separate line from the Southern Railway. From the recapitulation shown on sheet 3, it will be seen that there were no single line hauls, less than 9 per cent of the traffic moved over only two lines, 43.5 per cent over three lines, 31 per cent over four lines, slightly over 15 per cent over five lines and approximately 1 per cent over six lines. This exhibit will show the extent to which there was a movement over such roads as the Georgia and Florida Railroad, the Atlanta, Birmingham Coast Railroad, the Macon, Dublin & Savannah Railway, whose witnesses previously testified in this case, although that information is shown in a little more detail in the sketch, my Exhibit No. 311. For instance, it will be seen from Exhibit 311 that the S. & A. Railway from Savannah to Camak, handled 773 cars; the Georgia & Florida Railroad handled from Willacoochee, 625 cars, and the A. B. & C. handled north of Douglas 978 cars, and so forth.

I file as my Exhibit No. 315, consisting of three pages, statement showing analysis of the movement beyond the Ohio River of the 8,773 cars. From the recapitulation [fol. 1734] shown on sheet 3, it will be seen that approximately 63 per cent of these cars moved beyond the gateways via a single line, 32.36 per cent moved via two lines, 4.6 per cent via three lines, .13 per cent via four lines.

I said in connection with my previous exhibit that I treated the C. N. O. & T. P. Railway and the Southern Railway as two lines. On this Exhibit 315 I have in various instances treated such roads, for example the Michigan Central and the Big Four, as two lines, although they are really parts of the New York Central System. The Big Four, the New York Central, and the Michigan Central have each been shown as a separate line. The Cincinnati Northern is shown as a separate line.

By reference to my Exhibits Nos. 234, 304 and 305, it will be seen that the total weight of the 8,773 cars is 290,101,431.5 pounds. The total revenue on this movement under the present rates is $3,143,346.22. The weighted average through rate is, therefore, 108.5 cents. From my Exhibits Nos. 304 and 305, it will be seen that, on a revenue prorate basis, the weighted average proportion south of the Ohio

River gateways is 90.2 cents, while the weighted average proportion north, exclusive of St. Louis and East St. Louis, is 18.3 cents, or a total of 108.5 cents.

The average weighted haul south of the Ohio River gateways is 1084 miles, while the weighted average haul north [fol. 1735] is 275 miles. In other words, 79.8 percent of the haul was in southern territory and 20.2 percent in Central territory. The weighted average through rate of 108.5 cents contains approximately 6.5 cents arbitrary for the haul in the Florida peninsula. Deducting 6.5 cents from the weighted average through rate of 108.5 cents leaves 102 cents which, if divided upon mileage percentages which I have just mentioned, makes the proportion for the Central territory lines 20.6 cents as against 18.3 cents on revenue prorate basis which I have suggested. The revenue retained by the Central territory lines approximate 20.1 cents per 100 pounds beyond the Ohio River.

When consideration is given to the facts that operating conditions are more difficult in the South, that traffic density is much lower than in Central territory, etc., it does not seem to me that the proposed proportion of 18.3 cents is out of line when compared with the average proportion of 20.6 cents which the Central territory lines would receive if a straight mileage prorate be employed, first deducting the Florida arbitrary.

In contrasting the proportions accruing north of the Ohio River on a revenue prorate basis with the proportions which would accrue under a mileage basis, I desire it understood that I am not advocating that the divisions be upon a mileage prorate basis. In this connection, it should be remem- [fol. 1736] bered that these through rates on citrus fruit, in addition to reflecting the L-2 arbitraries for the Florida peninsula lines, also reflect to a great extent the less favorable conditions in southern territory. I think, therefore, that, as the Official territory lines usually employ a mileage prorate in dividing their intraterritorial rates, the most they could expect in dividing these through rates from Florida would be to first deduct whatever excess may be reflected in the through rates because of less favorable conditions in southern territory and then apply a mileage prorate to the remainder. Of course, I realize the difficulty in determining in a satisfactory way the precise amount of the excess.

In order to illustrate the percentage proportions which would accrue to the Official territory lines if the through class rates from Florida to Official Territory were made upon the mileage scale prescribed in I. C. C. Docket 15879 and divided to and beyond the gateways upon a mileage prorate which, as I have said, is the usual basis observed by the Official Territory lines in dividing their intra-territorial rates, I have prepared Exhibit No. 316 which shows the class rate distances to and beyond Richmond from Lake Wales, Florida, a representative origin, to eight representative eastern destinations. The percentages to and beyond Richmond, yielded by using these distances as factors, are [fol. 1737] shown under Column "B" of the exhibit. Under Column "C" are shown the first class rates yielded by the Docket 15879 scale, applied to the through distances and divided by using the mileage percentages shown in Column "B." In Column "D" are shown the first class rates from Lake Wales under I. C. C. Docket 13494, using the Q-1 differential plan and the divisions to and beyond Richmond, allowing beyond Richmond proportions obtained from Column "C". In Column "E" are shown the percentages based upon using as factors the divisions of the through first class rates as shown in Column "D". In Column "F" are shown the southern lines' proposed citrus fruit percentages. It will be observed that, with the single exception of Buffalo, the southern lines' proposed percentages allow beyond Richmond the same as or greater percentage proportions than those shown in Column "E", which were obtained in the manner which I have just described.

The Albany, Georgia, in the first column of that exhibit, should be Albany, New York; that is, the fifth destination should be Albany, New York, instead of Albany, Georgia.

My next Exhibit, No. 317, is a similar statement showing divisions to and beyond Cincinnati from Lake Wales to nine representative points in Central territory. In every instance the southern lines' proposed citrus fruit percentages allow beyond Cincinnati greater proportions than the per- [fol. 1738] centages shown in Column "E", arrived at in the manner which I have just described.

As illustrating the subdivisions between the several lines handling the traffic up to the Florida gateways and to and beyond the Ohio River gateways, I have prepared my Exhibit No. 318, consisting of two pages, which is a statement showing from Lake Wales, a representative origin, to Chi-

cago and Columbus, Ohio, as representative destinations, the rates and divisions and per car and per car per mile revenues of the various participating carriers via the principally used routes. The exhibit shows the rates and agreed divisions thereof in effect on November 8, 1928, the present rates divided on basis of percentages arrived at by using the November 8, 1928, rates and divisions as factors, and the present rates divided to and beyond the Ohio River by use of percentages now proposed by the southern carriers with subdivisions of the proportions accruing south of the Ohio River gateways on the agreed basis.

The first illustration shows the rates and divisions from Lake Wales to Chicago via A. C. L. to Jacksonville, A. C. L. to Montgomery, L. & N. to Evansville, C. & E. I. beyond. It will be observed that under the basis proposed by the southern carriers the per car per mile revenues accruing to the A. C. L. for its Florida haul is 45.6 cents and for its haul from the Florida gateways to Montgomery 21.4 cents. [fol. 1739] The per car per mile earnings of the L. & N. from Montgomery to Evansville is 25.3 cents, while that of the C. & E. I. beyond Evansville is 21.2 cents. Via Albany, Atlanta, Nashville and Evansville, it will be observed that the Central of Georgia's per car per mile earnings for its 208 mile haul from Albany to Atlanta are 19.2, whereas the C. & E. I. for its haul of 287 miles receives 21.1 cents.

In the upper righthand column are shown the divisions from Lake Wales to Chicago via A. C. L. to Willacoochee, G. & F. to Augusta, Georgia R. R. to Atlanta, L. & N. to Cincinnati and C. & O. beyond.

Attention is called to the low per car per mile earnings accruing to the G. & F. R. R. from Willacoochee to Augusta and to the Georgia Railroad from Augusta to Atlanta.

Attention is called to the divisions via Yemassee, C. & W. C. to Spartansburg, Clinchfield R. R. to Elkhorn City, thence C. & O. beyond. The C. & O. for its haul in southern territory receives only 16.5 cents per car mile, whereas for its haul in central territory it receives 21.3 cents per car mile. Likewise the N. & W. for its haul from Winston-Salem to Cincinnati and from Petersburg to Cincinnati receives proportions of 15 cents and 14.7 cents per car mile respectively, whereas the P. R. R. beyond Cincinnati receives proportions on basis of 20.6 cents per car per mile.

The C. & O. Railroad on movements via Cincinnati is [fol. 1740] already receiving substantially less revenue for

its hauls south of Cincinnati than it receives for its haul north of Cincinnati. It receives 16½ for that part of its haul that is in southern territory and 21.3 for that part of its haul in Central territory. If I correctly understand, its position was it wants to make the situation even worse.

Mr. Hall: As I understand you, these figures are proposed percents, not present percents; is that not correct? Have you not divided them in this exhibit as between Southern territory and Official territory?

Mr. Gwathmey: That shows all the way through.

Mr. Hall: Those are the figures he was commenting on.

Witness: Well, as a matter of fact if the exhibit showed what the C. & O. is taking beyond Cincinnati it would show a greater per mile earning north of Cincinnati than is shown in the exhibit.

Mr. Hall: But my point is you have not shown what it is actually taking yet, have you?

Mr. Gwathmey: You mean under the old rates?

Mr. Hall: At the present time. On this exhibit has he shown that?

Witness: No, it is not shown exactly that way, but the exhibit shows this. We are now referring to the second route in the second column of page 1 of the exhibit. That [fol. 1741] shows the C. & O. proportion beyond Cincinnati in the first column as of November 8, 1928. The agreed proportion was 18 cents per box. In the middle column are shown the divisions of the present rates upon a revenue prorate; that is, divisions of former rates as factors. Those divisions are the same as the southern carriers are now proposing; that is, the proportion of 18.7 cents per hundred pounds, yielding 21.3 cents per car per mile. Now, the C. & O. beyond Cincinnati actually is retaining revenue based upon 20 cents per hundred pounds, which would make a proportion per car of $64.80 with a per car per mile proportion of 22.7. Now, to the extent that the 21.3 per car per mile earnings shown in the last column is increased to 22.7 there would be a corresponding reduction in all of the other columns in that showing.

I am not asking the Commission to fix divisions south of the gateways. On sheet 2 are shown the divisions from Lake Wales to Chicago via S. A. L. to Richmond, thence C. & O. beyond. For its haul in southern territory, the C. & O. receives revenue on basis of 15.1 cents per car per mile,

whereas in Central territory its revenue is based on 21.3 cents per car per mile.

The divisions of the rates from Lake Wales to Columbus shown on sheet 2 of the exhibit indicate that the per car per mile earnings of the lines beyond Cincinnati very closely [fol. 1742] approximate the earnings of the Florida lines, the per car per mile earnings via the A. C. L. being 44.3 cents, via S. A. L. 43.3 cents, whereas the proportions beyond Cincinnati yield per car mile revenue of 39.9 cents.

I am speaking now of the proportions under the southern carriers' proposal. Attention is called to the low per car per mile earnings received by all southern lines which participate in this movement from Florida gateways up to the Ohio River gateways. On the traffic which the C. & O. handles from Elkhorn City to Cincinnati, its earnings are on basis of 16.3 cents per car per mile whereas the Central territory line beyond Cincinnati receives 39.9 cents per car per mile. On the traffic which the N. & W. handles from Winston-Salem, it receives up to Kenova revenue approximately 19.8 cents per car per mile, while for its haul beyond Kenova in Central territory its revenue is equivalent to 34.3 cents per car per mile.

It will be observed that the proposed per car revenue beyond the Ohio River to Chicago is $60.59. In this connection, I call attention to the fact that the local rates on vegetables, NOS, such as beans, lettuce and celery, carload minimum 20,000 pounds, from Cairo, Illinois, to Chicago, is only 25 cents per 100 pounds, which yields $50 per minimum car. On cabbage, carload minimum 24,000 pounds, the rate is also 25 cents, which for a minimum car, yields $60. Be- [fol. 1743] cause of these rates from Cairo, the Interstate Commerce Commission, in Docket 14435, Public Service Commission of Indiana v. B. & O., et al, 89 I. C. C. 651, required the establishment of corresponding rates from points in Indiana to Chicago.

Mr. Gwathmey: We ask that these exhibits be received and numbered 304 to 318.

Cross-examination.

By Mr. Beach:

Uniform percents do not apply on citrus fruits at the present time north of the Ohio River gateways. The

present rates are not divided on percentages. That is, the Central territory lines are making the settlement and they are not using percentages. They are using the old per box proportion. They were the same. My proposal is to have a uniform percent appy from all of the Ohio River gateways where that route is employed to a given destination. In other words, we propose to substitute this percentage plan of dividing the rates for the basis that was formerly in effect under which a uniform proportion applied from the Florida gateways up to the Ohio River crossings. In other words, when the rates were revised in compliance with the Commission's order in Docket 1168, the [fol. 1744] through rates were made lower than combination. A dispute arose regarding the division and that was subsequently heard before the Commission and the Commission fixed a uniform proportion of 41 cents per box from the Florida gateways up to the Ohio River crossings. Now, they did not undertake to say then that the rate to Cleveland, Ohio, for example, would apply via Cairo. They simply left it to the lines to work out, so that if the line north of Cairo wanted to accept the balance after allowing the uniform proportion of 41 percent (cents) it was free to do so, I suppose, but as a general proposition the tariff is now restricted so that the rate only applies via routes over which the uniform proportion up to the Ohio River is acceptable. My proposal continues that same theory. In other words, there has always been a uniform proportion beyond all the gateways to the Chicago territory. As I have explained, we have never made any difference between the gateways from the origins. We have carried it to one crossing for the same price we would carry it to any of the others.

By Mr. Hall:

Exhibit 304 on its face applies via the Ohio River gateways. My proposal only contemplates a fixed percentage to and beyond the so-called Ohio River gateways. I intend to include such gateways as Limeville and Kenova—to only the so-called Ohio River gateways, including Limeville and [fol. 1745] Kenova. I offer no basis for divisions through Elkhorn City. We have established percentages via Elkhorn City, agreed percentages that apply from the Florida gateways to the Ohio River gateways. I offer no proposal

for a different division via Richmond than via Cincinnati. We have percentages from Jacksonville to Cincinnati, for example, via Richmond and also via Petersburg. We have no idea of making Richmond and Petersburg gateways to Central territory.

On my Exhibit 306 in showing my destination groups I show practically none of that portion of the line of the Norfolk & Western and of the C. & O. Railway which has been defined by the Commission to be in Official territory. I do not propose any basis for divisions to any of that territory on citrus fruit from Florida. This proposal that I made was designed and intended to cover the territory beyond the Ohio River gateways. I did not include any C. & O. stations or any N. & W. stations that are south of the Ohio River.

My proposal does not include any basis for dividing rates on citrus fruit from Florida via Richmond to Lexington, Winchester or Louisville. That is all in southern territory, as we consider it.

My proposal does not include the fixing of divisions on citrus fruit through Richmond to Charlottesville, Lynchburg, Huntington and Charleston. At most of those places we have agreed percentages.

[fol. 1746] Q. Does that, in your judgment, afford you sufficient reason for not making any proposal in this proceeding to divide rates on citrus fruits to these points I have mentioned?

A. We may not be satisfied with it, but where we had percents you stood your part of this reduction. You may have overlooked it.

The destination groups are indicated on the map, Exhibit 306. Exhibit 307 is a list of the destinations to which we found a movement during this test period and just for convenience I have placed those points in alphabetical order and showed the corresponding group as indicated on Exhibit 306.

My proposal was designed to include only that territory beyond the Ohio River crossings. The reason I limit the territory characterized as Official territory in this proceeding to the territory beyond the Ohio River crossings is that I did not even want to talk about Central territory. I thought that the hearing ought to be kept to the issues of

the formal complaint which involved the Eastern Trunk Line territory and New England territory. I am not talking about a partial view of it. I simply did not include the Norfolk & Western, C. & O., or the Virginian stations in Virginia or West Virginia because I did not understand with the broadening of this case to include Central Freight [fol. 1747] Association territory that it was intended to include West Virginia and Virginia. There had to be some limitation on what I had to do—time limitation.

I do not think the Commission need bother at this time to fix divisions from Florida to Lynchburg via Richmond for example, any more than try to fix divisions from Florida to Cincinnati.

I suppose the record would show whether our counsel threw the matter wide open to fix divisions on all commodities between Official and Southern territories, but I do not understand under any interpretation of the Commission's order of general investigation that it would include traffic moving to Lynchburg from Southern territory.

I realize that the order of the Commission contains this language, that "a proceeding of inquiry and investigation be, and it is hereby instituted, for the purpose of determining whether the present divisions of joint rates on classes and all commodities between points in Official territory, including Illinois, on the one hand, and Southern territory, except the rates on citrus fruits from Southern territory, which are involved in No. 24069," and that is the order of investigation in this proceeding.

The proposal as I have said does not include stations on the C. & O., the N. & W. and the Virginian Railway south of the Ohio River gateways.

[fol. 1748] By Mr. Gwathmey:

I have not heard the C. & O. or the Norfolk & Western or any of these other gentlemen submit any proposal as to what those divisions ought to be.

By Mr. Hall:

I consider the C. & O. as being a southern line or as having a portion of its line in southern territory for the reason that I consider when the C. & O. joins us in handling traffic to Cincinnati for movement on to points in C. F. A. it is a southern line. It has certainly been very diligent to try

to get representation in our rates based upon that sort of division. We have not handled anything via the Virginian to speak of. About the same applies to the N. & W. We interchange considerable traffic with them at Winston-Salem. We never considered that an Ohio River gateway on any of this traffic or that we were immediately sending the traffic into Official territory when we gave it to the Norfolk & Western at Winston-Salem.

I have had a lot of difficulty in understanding the position of the C. & O. and the N. & W. It seems to me they stand to lose money rather than to make money but that is their business. I think the position taken by the C. & O. in this proceeding will likely produce it less revenue than the proposal I am offering. The more you increase the [fol. 1749] proportion beyond Cincinnati or beyond Limeville the less you will have to divide up south.

Mr. Hall: Mr. C. W. Dilfill, operating Vice-President of the D. T. & I. Railroad was a witness in this proceeding on July 2, 1931, his cross-examination beginning at page 1044. In that connection Mr. Gwathmey asked him with reference to the 25 cars of oranges that moved in September, 1930, and shown on his Exhibit 193. He wanted to know the origin of these oranges. Mr. Dilfill has sent a letter to the Examiner in charge enclosing copies of each way-bill taken from the accounts of his railroad for each month. I would like to offer that letter and those way-bills in evidence in answer to the question.

(Said documents, so offered, were received in evidence, marked Exhibit 193-A, Witness Dilfill.)

The further hearing was adjourned to 9:30 o'clock A. M., Wednesday, November 18, 1931.

[fol. 1750] Washington, D. C., November 18, 1931.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

J. L. Heywood was recalled for further cross-examination and testified as follows:

By Mr. Gwathmey:

I am a Special Agent in the accounting department of the Pennsylvania Railroad, located in Philadelphia. I did not personally compile the data and information shown on my Exhibit No. 230; I supervised it. I also was on the ground but I had several people working with me.

I do not know just how often I have occasion to go over the Harsimus Cove Yard. If some question comes up involving the yard I would go over there. I would not say I go there once in six months. There might be quite a lapse of time and then I might go over there for several months [fol. 1751] straight. I am not in position to say how often I visit Piers 27, 28 and 29 on the New York side. The last time I was there was around July or August. Prior to that it must have been very close to a year or more ago, if not a little longer.

In the preparation of Exhibit No. 230 I did not personally go to Harsimus Cove and go over the property and prepare the data that is shown on that exhibit. I assisted. I had several assisting me in compiling it. I was there at Harsimus Cove but not continuously but I had several men there continuously. I made a number of visits there several days at a time, sometimes a week.

I have used a test period here in this exhibit of 15 days from April 16 to April 30th, 1931. I was not personally at Harsimus Cove at any time during that test period. I was not personally at either Peirs 27, 28 or 29 at any time during that period.

On page 3 of my Exhibit No. 230 the Harsimus Cove yard charges to Accounts 202, 212, 214, 216, 218 and 220, as shown at the top of the page, are shown to have been computed by applying to the 3,380 locomotive hours made at Harsimus Cove during the test period, April 16-April 30, the average hourly rates arrived at by dividing the 1,923,205 yard freight locomotive hours made on all New York divisions yards for 1928, 1929 and 1930 into the freight propor- [fol. 1752] tion of these yard accounts for the New York division for the same hours. I think that the charges thus constructed, aggregating $3,194.13, and carried to page 2, fairly represent the proper charges at Harsimus Cove yard to these accounts.

I have not made any attempt to compile the actual charges made to the primary accounts at Harsimus Cove

yard for the three years, 1928, 1929 and 1930, as I did in the case of the Harsimus Cove yard, Accounts 208, 210, 227 and 241. If we had we would not have used the method we did. I could not readily have made such an ascertainment because our records are not kept in that manner. It was not merely a question of going through our records and assembling the data instead of taking the average for the entire New York division.

In predicating my charges as to Accounts 202, 212, 214, 216, 218 and 220 on the yard locomotive hour average for all the yards on the New York division, I am suggesting that the charges to these maintenance accounts are based on the hours of service. It is on the basis of the hours of the locomotives, which we use as the divisor in the first place to get the factor of the rate per engine hour and naturally we consider that after taking the entire division and arriving at a factor per engine hour, yard freight locomotive, that the yard engine hours for the particular duty under study, multiplied by that factor, would give a fair [fol. 1753] proportion of the amount of expenses applicable to that yard.

I would not want to say point blank that I have predicated these maintenance accounts as being controlled solely by the factor of use.

The Interstate Commerce Commission in its formula for the ascertainment of maintenance of way and structures allowances for the guaranty period, March 1, 1920, to August 31, 1920, provided that one-third of such maintenance was to be dealt with as fluctuating according to use, leaving two-thirds as unaffected by use.

I would not want to state whether I really agree thoroughly with the Commission that, roughly speaking, one third of the maintenance of way and structure accounts is governed by the use and the remainder thereof is unaffected by use. I do not consider that all of the maintenance of way and structure expenses are controlled by the one factor of use. I can not give you the boundaries of the Harsimus Cove yard on the north and south sides of the line between Brunswick Street and the pierhead line.

The Vice President in charge of real estate verified the taxes on the 105.18 acres of land lying between Brunswick Street and the pierhead line. The figure of 105.18 acres appeared in the tax assessment book which the state of New Jersey issues each year.

[fol. 1754] Q. The charges which you have shown on page 3 of your Exhibit No. 230 to Account 241 appear to have been arrived at by taking 15/365ths of the yearly average actual charges to Account 241 for the years 1928, 1929 and 1930. Will you state the amount of charges to Account 241 separately for 1928.

A. My work sheets show that information for each year and I had that information before me and combined it in order to get the total for the three years, but I have not the work sheets with me. I will undertake to furnish that information later.

I am not in position to answer whether the transfer bridges, 3, 4, 5, 6 and 7 as listed on page 6 of my exhibit, are used exclusively for the transfer of cars between Harsimus Cove and the New York side. This exhibit was prepared and this was considered, as I said. It covered nothing, from the engineer's advice, but perishable freight handling or that which could be attached to the perishable yard. I do not know at the present time whether those transfer bridges are used for the transfer of cars. I do not know whether these transfer bridges are used in connection with the lighterage of freight. The transfer bridges as shown on page 6 of my exhibit are not the docks and wharves as shown on page 3 to which the $4,916.52 of maintenance applies. I said that the entire figure there did not [fol. 1755] cover those particular bridges. It covered Harsimus Cove which was taken on a yard basis. There are several other float bridges and tie-up piers at Harsimus Cove to which these account 241 charges apply; also the boat master's pier. I could not go into any great detail right now. Pier H is there. There are not, to my knowledge, any of these other wharves and docks to which I have just referred shown anywhere on page 6 of my exhibit. As I told you before, I felt that these figures cover that used exclusively for perishables freight but I was not positive and I will verify it. I did not say I prepared this exhibit in the beginning; I said I supervised the preparation of it, as I recall. I do not know in detail the facts as shown on this exhibit.

The note appearing at the bottom of page 3 of my exhibit, reading: "Column 4, result of study of locomotive repairs to various classes of locomotives for the year," means that the figures which were used, the repair figures,

are based upon a study made of actual repairs, running and class repairs. I made an effort to determine for what year these rates are based. I believe Mr. Lamb will verify that, and I was not able at the time to get it. I did not make any study myself. We used the rate that is used generally, which is changed over a period of time. It is reviewed and brought to date by our supervisor of motive power. I made no special study myself in connection with [fol. 1756] this item. Only yard locomotive engines are included. We do not have our road locomotives in the same class with the same class numbers, according to my understanding. We may interchange road locomotives in switching service, but I am not in position to say whether the switching locomotives were studied separately from road locomotives falling in the same class that may have been used. The costs for each class of locomotive were not ascertained for the system as a whole. It was done by regions.

As to the charge of $2,959.34 as is shown on page 4 to Account 377, yard masters and yard clerks, I have not the information as to the sources comprised in this Account, separated as to yard masters, assistant yard masters, car clerks and each of the other separate occupations. I do not know how many general yard masters were included or how many assistant yard masters or how many train masters or how many clerks. I will undertake to furnish that information for you after this hearing.

I do not know whether any of the yard forces shown on page 4 during any portion of the test period performed any service west of Brunswick Street. The Jersey City passenger station is adjacent to Harsimus Cove yard. I do not know whether at any time during the test period any of those employees performed any passenger switching at or in the vicinity of the Jersey City passenger station. [fol. 1757] There is a connecting line between Harsimus Cove yard and the Jersey City passenger station. I do not know whether there may have been switching in connection with express movements to and from those tracks. I do not know whether any of that switching may have been performed by the yard masters and yard clerks referred to on page 4 of my exhibit. As the exhibit states, and as I said before, this covers the salaries of the yard masters and yard clerks in Harsimus Cove yard and they do the work in the yard.

I am not in position to say, referring to Account 408, operating floating equipment, $2,749.70, whether any of those forces were used at any time during the test period in any service other than in floating perishable freight between Harsimus Cove and the New York side. I am not in position to say whether these forces during the test period performed any service in connection with the lighterage of freight.

Referring to the last column on page 4 under "Yard locomotive operations" and to the figures "577625" under yard locomotive engine hours, these engine hours were made on the entire New York division. We have assumed, on page 4 of my exhibit, in dealing with Account 382, Fuel for Yard locomotives, that the average consumption of fuel per yard locomotive hour is the same on all New York division yards, irrespective of the size of the locomotive or of the service [fol. 1758] in which it is engaged. I suppose we could have ascertained the actual amount of fuel consumed by these locomotives in Harsimus Cove yard during the test period. I will admit no doubt that may have been more accurate. Having used the method we did, we did not ascertain whether the charge-out price of coal used in yard service was at the same rate or rates per ton during all of the year 1930 as that obtained between April 16 and April 30, 1931. I can not say whether or not the price was the same. I do not know how the record is kept of coal issued account of yard locomotives and charged to Account 382.

Turning to page 5 of my Exhibit No. 230 where is shown "Cars received and dispatched (loaded and empty) 24,962 cars" for the test period, these cars represent the total number of cars loaded and empty, entering or departing from Harsimus Cove during the test period. The 24,962 cars were entirely freight cars.

I do not know what carriers the Pennsylvania interchanges with at Harsimus Cove. From the map which Mr. Menaugh has filed, Exhibit No. 156, it would appear that Harsimus Cove lies between the Jersey City passenger station of the Pennsylvania on the south and the Erie Railroad and the D. L. & W. on the north. I do not know whether any interchange is made between the Pennsylvania and the Erie Railroad at or near Brunswick Street. I do [fol. 1759] not know whether any interchange is made with the Lackawanna Railroad there.

The 24,962 cars are all the cars that entered and left the Harsimus Cove yard. If there are any interchange cars that entered Harsimus Cove, I would say they are in there. They are the cars that entered and left the yard. During the test period there were no intra-terminal switching services performed for which switching revenues were collected at Harsimus Cove that I know of, but I do not know. If there were any such cars they were included in the 24,962. I do not know whether any switching revenues were collected on inter-terminal switching. If any were switched inter-terminally they were included in the 24,962.

Referring to page 6 of my exhibit for the property use in Harsimus Cove yard service is detailed, the 105.18 acres of land covers the land from Brunswick Street to the pierhead. There may be some miscelleaneous property adjacent thereto that it would not include.

Q. I am trying to find out whether that 105.18 acres includes all of the land east of Brunswick Street and owned either by the United New Jersey Railroad and Canal Company or the Pennsylvania Railroad? Does it or does it not?

A. It includes strictly the yard acreage.

I am not in position to say whether we own land adjacent thereto or not. That may not be called transportation prop- [fol. 1760] erty. The United New Jersey Railroad and Canal Company is a railroad. I do not know whether they own that property in there but if it is part of the United New Jersey it is under lease from the United to the Pennsylvania Railroad. I said the 105 acres covered the Harsimus Cove yard land between Brunswick Street and the pierhead. I cannot say whether we have land adjacent thereto or not because I am not in position to say that. It covers the assessed valuation of the land contained in the Harsimus Cove yard. That is all the 105.18 acres represents, Harsimus Cove land under trackage. The entire 105.18 acres of land as shown on that exhibit are used to accommodate the 179,609 feet of sidings. There may be several other small facilities there that we did not include as being connected with perishables.

I have not the record here showing the approximate number of acres occupied by railroad facilities and, separately,

the acreage of the lands which the Interstate Commerce Commission would classify as non-carrier lands.

I did not look at the record to see whether the 79.3 acres of the 105 acres of land owned at the date of valuation of the Pennsylvania Railroad by the Harsimus branch of the United New Jersey Railroad and Canal Company was classified by the Commission as carrier land and the remainder thereof as non-carrier land. I did not look at that particular record as of the date of valuation. This is as of 1931. [fol. 1761] If it is proven that a portion of this 105 acres is non-carrier land it should have been excluded. I am willing [fol. 1762] to check that but I am positive of the figure used.

A portion of the Harsimus Cove facilities may be known as the "Ball Park" section. I do not know positively whether there are any sub spur tracks running into this Ball Park area. If there are, I do not know what use is made of them. I do not know the type of locomotive which our company finds it practical to use in switching these Ball Park tracks.

I will give you later the number of loaded cars and the number of empty cars handled each day of the fifteen day test period.

I could not say whether during this test period the 29 individual locomotives shown as having been used were of the same type as to number of drivers. I simply know our type of engine as shown here on the statement. When I speak of these engines I speak of them as the type shown here. There are different types used in switching in that yard. I do not know whether some of these are 4 driver locomotives, others 6 driver locomotives and others 8 driver locomotives. I can not say whether from the standpoint of safety and curvature of the tracks it would be practicable to use 8 wheel locomotives on all of the Harsimus Cove operations. I am not an operating man. I do not know how they use these particular engines on the various sections of the yard. I know those classes are used in the yard. We have picked out the particular class of locomotive that [fol. 1763] is applied to the perishable traffic. We took all of our yard cost. We took all of the cars that went into the yard, feeling that we could not pick out the particular cost of perishables. I would say, according to the curvature, you can not use a large locomotive on some of the tracks, but I do not know what locomotives are used on the

particular section of the Harsimus Cove yard. I do not know the physical condition of the tracks there and whether there are extensive tracks which have sharp curves or what parts of the yard they are located in. I know there are a number of tracks curved and some run fairly straight. I do not know whether the tracks that run from Brunswick Street down to the pierhead over which the traffic moves are in a direct line. I would say they are not in a straight line, a directly straight line. No doubt there are some very sharp curvatures in other portions of the yard.

On page 5 of my exhibit it appears that 3,380 engine hours, a total of 24,962 cars, were handled during the test period or an average of only about 7 cars per engine hour. I do not know whether it is possible to handle 7 cars of citrus fruit traffic per yard locomotive hour. I can not say whether or not that average of only 7 cars per engine hour applied in the handling of citrus fruit.

Q. Now, Mr. Heywood, I want to ask you if it is not a fact that on the land shown on page 6 of your Exhibit No. [fol. 1764] 230, as comprising 105.18 acres, and on which you have figured taxes and interest charges, and included them in your cost study, there are, in fact, located the following industries or structures:

Stock yards of the Jersey City Stock Yard Company.
Coal Pier and Plant of the Berwin-White Coal Manufacturing Company.
Jersey City Coal Company.
Merchants Refrigerating Company.
New York Iron Roofing & Corrugating Co.
Two buildings occupied by P. Lorillard & Company.
Hudson Wholesale Grocery Company.
Eagle Grocery Company.
Grocers Produce Company (Building occupied by 10 or more firms).
A macaroni manufacturing plant.
Two buildings serving Butler Brothers.
Baker Castor Oil Company.
Stillman-Delehanty-Ferris Co.
Power house of the Hudson & Manhattan Railroad Company.
S. Safier & Co., Inc.
McCormick & Company.

Atlantic & Pacific Tea Company.
Terminal of the American Export Lines.
[fol. 1765] Jersey City Stores, Inc.
Armour & Company (abattoir.)
Pennsylvania Railroad's Jersey City Freight Station.
Pennsylvania Railroad Pier Warehouse "K" and "L".

Is it or not a fact each and all of those industries, plants or structures, are actually located on the 105.18 acres of land, as shown on page 6, of your Exhibit 204?

A. I would like to have the privilege of checking those various properties.

I do not know whether it is a fact that in 1930 the Pennsylvania Railroad Company collected a rental of $50,460.52 from the Jersey City Stock Yards Company, covering land in that area. I do not know that our annual report to the Interstate Commerce Commission shows that we collected from the Berwind-White Coal Mining Company a rental of $12,500 nor that we collect from Jersey City Stores, Inc., $10,000 rental. I would want the privilege of checking them and giving you an answer on that.

No doubt there was a rental collected from the Hudson & Manhattan Railroad Company of $43,249.55 annually, as shown in our report.

Mr. Gwathmey: In view of the fact that this entire 105.18 acres of land has been included in this cost study, and in [fol. 1766] view of the witness' inability to describe at this time the exact boundaries of that land and the location of the respective buildings to which I have just referred, I ask that the Pennsylvania Railroad be required to furnish subsequent to this hearing a blue print copy, certified, which will show the exact boundaries of the 105.18 acres of land and which will also show a list of the industries which I have named to the extent that they are or not located on that land, and also the exact location of each industry to which I have referred.

Witness: The subway of the Manhattan Railroad Company goes under the Harsimus Cove yard. They go right along the Bay there or right along the River. If I recall correctly, the tunnel goes under the water. I could not say where that tunnel is located exactly. I can not say whether any storage or demurrage, reconsigning or other charges

are assessed against shipments handled in the Ball Park section of the yard because I told you I did not know the points about this Ball Park section exactly.

I assume that storage or other revenues, other than line haul revenues, are collected through the Jersey City local freight station or in connection with the operation of pier warehouses K and L on the waterfront.

I do not know where the 25,831 feet of sidings on trestle are located. This is not a complete map of the trestles and [fol. 1767] all. I do not know whether a great deal of that is connected with the Berwind-White Company's plant. I do not know whether there are certain trestles that extend to that plant.

The contractual relationship existing between the Pennsylvania Railroad and the American Export Lines is simply for docking at the dock in Jersey City adjacent to the yard. I do not know whether tracks extend to the property used by the American Export Lines because I do not know just what docks they use outside of using the Pennsylvania Dock and Terminal Company.

I could not say whether or not the land that is actually used in the switching of citrus fruit traffic through Harsimus Cove yard is all confined to the Central portion of that yard because those cars may not go directly through; they may come back and be put on a hold track.

Q. Mr. Heywood, I find that in I. C. C. Valuation Report covering Valuation Docket No. 928, the Pennsylvania Railroad et al, the following is contained concerning non-carrier classification of land owned by the United New Jersey Railroad & Canal Company, the latter company's property being leased to the Pennsylvania Railroad.

At page 116—V. S. 1.01, New Jersey	1,322	sq. ft.
At page 117—Rented to wholesale dealers in Jersey City	35,428	" "
Leased to the Jersey City Stock Yard Company in New Jersey	693,000	" "
[fol. 1768]		
At page 118—Various areas adjoining the Terminal facilities in Jersey City aggregating	225,789	" "
Making a total of	955,539	" "
Which is equivalent to	21.94	acres

Are you familiar with those figures?

A. No, I have gone over that valuation. I have read through those figures at times.

Q. In view of those figures as shown by the Commission in its valuation report, is not your Exhibit No. 231 in error?

A. If that is correct I would say it may be in error but I would want the privilege of checking before I make that statement that it is absolutely in error.

No allowance or credit has been made for rentals received from those properties in our study. I do not know the approximate distance a car of citrus fruit traffic is hauled in Harsimus Cove yard from the point where the citrus trains terminate in the yard to the transfer bridges. I know approximately where the trains are broken up but I would not want to state the average distance per car. Maybe it would average a mile. I would not want to venture a guess on that.

Referring to page 6 of my exhibit in connection with valuation Section 1-01, New Jersey, or the Harsimus Cove yard, Exhibit 230, I do not know whether some of the [fol. 1769] switching of the 24,962 cars is included in the cost of $1,414,927 for wharves and docks.

Referring to page 9 of this exhibit which relates to tug and float repairs and depreciation and Accounts 323 and 324, I obtained the figures for the expense per hour for the several classes of equipment indicated from the superintendent of floating equipment from a study which he made for a period of 9 months in 1930, January to September 30, and they are the figures which he developed.

The cost per hour for the several items listed on pages 11 and 12 were also obtained from the superintendent of floating equipment from the same study.

I do not know whether the tenants of property that may have rented to outside parties in this area, in any case paid taxes on the land occupied by their facilities either directly or in bills rendered by the Pennsylvania Railroad. I am not in position to say whether the New Jersey tax officials assess railroad property at full value.

The entire amount of $91,389.21 shown for station pay-roll, Account 373, applies exclusively to the handling of perishables traffic consisting of 6,918 car loads. Piers 27, 28 and 29 are strictly perishable and that is the pay-roll of the piers. Piers 27, 28 and 29 are considered an exclusive

perishable station. I think during the test period there [fol. 1770] were two or three cars of silk handled there. The last time I was at those piers was in July and August of 1931. Prior to that time I had not been there for quite a while. I would not want to say exactly the time. There may be some merchandise warehouses adjacent to those piers used by the Pennsylvania Railroad. Debrosses station is a merchandise station. I am not in position to say that general traffic that is handled at the Debrosses street station is frequently, in case of overflow, handled on piers 27, 28 and 29. I was told by the agent himself that there was nothing but perishables handled at those piers. If the overflow is handled there he made a misstatement to me. We do not lease space on piers 27, 28 and 29 to other interests. I do not know whether we have a lease with the Porto Rican Steamship Company whereunder a portion of one pier is used exclusively by that company. I do not know whether we have any such arrangement with any other steamship companies for the use of any portion of this pier space. I do not know whether at any time we permit boats or vessels to dock at Piers 27, 28 and 29 for which a charge is assessed.

The floor on pier 29 adjoins the Desbrosses Avenue warehouse of the Pennsylvania Railroad. There is a restaurant on the second floor of Piers 27, 28 and 29 but I do not know whether it is operated by the Pennsylvania Railroad or [fol. 1771] leased. Not knowing whether it is operated by us, I do not know whether the restaurant help is included in the $91,389.21 of the station pay-roll for the month of April, 1931, but I feel it is not included in those figures. That covers our entire pay-roll as a pier operation in the handling of freight. I do not know whether the Pennsylvania Railroad collects any revenue from the restaurant. They do collect for meals, I would say, if they operate it. There is no credit shown for that on the exhibit. There are no credits on the exhibit for any revenues from telegraph or telephone concessions on the pier, if there are any. My understanding is that no portion of the office space on these piers is used for forces other than those having exclusive jurisdiction over the operation of the piers. One of our Vice Presidents has an office there but he has general jurisdiction over the handling of all perishables. I do not know whether the engineers, firemen, and so forth, included

in my statement on page 14 at the top of the page, perform any service or use any fuel or any supplies in furnishing heat or other service to the Desbrosses Avenue station of the Pennsylvania Railroad. The amount of $5,334 shown opposite fire insurance is for fire insurance on the pier property as I understand, from our insurance department. I know that it was paid. The amounts shown by me for fire [fol. 1772] insurance during the period covered by this exhibit No. 31 are identical with the amounts which were shown on page 11 of Exhibit No. 79 which was filed by Mr. Neal of our company in April, 1926, in Docket 16939. I have no explanation as to why the amount of insurance was the same in 1926 as it was in 1931.

Referring to station pay-roll No. 373, Labor at Station paid Contractors, and so forth, amounting to $66,674.56, I stated on direct examination that was an unloading charge for piers 27, 28 and 29, from floats to piers. I am not familiar with I. & S. Docket No. 3596 which was a suspension proceeding relating to allowance for stacking of fresh fruits and vegetables. There is a stacking charge of $2.35 per car on the piers. I do not have the amount of revenue the Pennsylvania derived during the test period from this charge against the consignees. I tried to locate the rough papers yesterday that would have shown if there was anything collected for that. I do not think that the $2.35 charge applies specifically in connection with citrus fruit moving from Florida. It does apply in connection with citrus fruit from Florida. There was a tariff which read: That when the consignee or owners stack fresh or green vegetables packed in packages other than bags, an allowance would be made of $1.50 per car on carload shipments and 45 cents per hundred weight on packages or less than carload ship- [fol. 1773] ments, a maximum of $1.50 per less than carload shipment being provided, but I am inclined to believe that was suspended in May of this year or thereabouts.

I would not want to say absolutely that the amount of $66,674.56 for "Labor at Station paid contractors," and so forth, includes any allowance paid to the contractors in connection with the stacking service charge of $1.50. I would like to give you the make-up of that $66,000 and it will show whether there is or not.

There is recooperage performed on those piers. I believe there is a small amount in the $66,000 for recooperage.

I think you are correct in saying that the Pennsylvania Railroad Company bills various carriers participating in the handling of citrus fruit and other perishables entering New York for a portion of the cost of recoopering perishable fruit at Piers 27, 28 and 29, the average being $1.95 per car. There is a credit shown on this exhibit in connection with cooperage. It is shown there as a net figure after deducting these amounts. We took the charges and the credits and show the net figure. The $66,674.50 is not our own pay-roll; it is pay to contractors for various services rendered, such as unloading. It is called a station pay-roll because it is charged to that account, as far as we are concerned. That is why it is shown there under Ac- [fol. 1774] count 373. Labor at the station is not our pay-roll but it goes to Account 373.

I have heard of the Pennsylvania Railroad form C-T-307 reading: "Statement of billings, packages recooped at Piers 27, 28 and 29 N. R., N. Y.", but I would not say that I am familiar with it. I believe this form is used by the Pennsylvania Railroad in listing the cars, showing the point of origin of way-bill freight, the commodity, date, way-bill number, car initial, car number and mileage over the several roads. If there is any allowance for the $2.35 per car charge made by the Pennsylvania Railroad where the consignees performed the stacking in the $66,000, the credit is shown there the same as for coopering. If we were doing the service it would have been our pay-roll. As it is under contract, it was considered under Account 373. If it had been credited to our revenues you would not be receiving credit for it here. It is used to reduce our costs.

We consider the movement of perishables through the pier warehouses during the test period, April 16 to 30, 1931, as fairly representative. I do not know how many cars of perishables were handled through the pier warehouses, Piers 27, 28 and 29, during the calendar year 1930. I do not know the switching rate for switching cars for delivery within the terminal limits of Harsimus Cove yard or cars [fol. 1775] coming from our connections at Jersey City. I do not know what switching rate is collected for intra-terminal movement in Harsimus Cove yard.

Referring to Exhibit 231 which relates to the Pittsburgh terminals of the Pennsylvania Railroad, covering the cost

of handling perishable freight at the 16th Street yard and Produce Terminal, I have followed exactly the same general method as used by me in estimating the cost at Harsimus Cove yard with respect to the assignment of maintenance accounts 212, 214, 216, 218 and 220 as shown on page 3 of my exhibit.

I am familiar with the Interstate Commerce Commission rules governing the separation of operating expenses between passenger and freight service, issued effective January 1, 1920, and the part thereof in respect to Accounts 202 to 226, track expenses, and so forth, reading, "It is essential that maintenance of tracks in yards where separate switching service is maintained be kept distinct from that of other track expenses of the exclusively freight or passenger yards being directly assigned." I would say that our accounts are kept in accordance with that requirement at Harsimus Cove as well as at Pittsburgh. I did not get the figures as shown on my Exhibits 230 and 231 covering maintenance of yards from those accounts because I believe I stated before that I do not believe we kept them [fol. 1776] by yards. My answer to your inquiries in respect to Exhibit 230 would be the same in respect to my Exhibit 231 with respect to these particular maintenance accounts and also Account 382. Fuel for Yard Locomotives.

I do not know whether any of the yard engines and yard engine crews listed on page 4 of Exhibit 231 performed any services outside of the 16th Street yard at Pittsburgh. I do not know the average number of men, exclusive of engineers and firemen, used in the switch engine service at the 16th Street yard at Pittsburgh. I do not know how the number of men for the switch engines at 16th Street, Pittsburgh, compares in number with the yard crews at Harsimus Cove. I believe there are some passenger trains switched by the yard crews at the 16th Street yard. They are not included in this study because we only used the yard expenses.

I do not know whether all of the lands included in the assessed valuation of certain yard facilities at pages 6 and 7 are taken up with the tracks used for the traffic handled in the 16th Street yard.

I did not go to Pittsburgh in connection with the preparation of this particular study. I only go through the 16th Street yards as occasion occurs. I have no specified num-

ber of times or how often. My duties in the accounting office do not require me to go over there. I do not know when I was there last. It has been some time ago. I have [fol. 1777] not been there within the last year. This study was made by a gentleman who was with me in New York and I continued on at New York and he went to Pittsburgh. I did not have him testify because I really supervised this from Philadelphia. I can not give you the number of miles of sidings, yard track, and so forth, occupying lands in these yards. I believe we are going to give you that. It is my understanding that a large number of industries are served by tracks located on these lands which are included in my exhibit, but I can not state what they are, other than those described on pages 6 and 7. My recollection of the reason why tracks are not included on pages 6 and 7 is that the tracks are not assessed; only the land. In Harsimus Cove the tracks are assessed separately. It is my understanding there is no tax on the tracks. I can not say whether the Pennsylvania Railroad derives any revenue from concessions on any of these properties that are included on the land shown on the exhibit. If there are I have not included such credits.

During the test period there were 13,529 cars handled at the Pittsburgh produce terminal. If any were reconsigned they were included as we were trying to get a per car cost of total yard expenses. They were only counted once, that is in and once out of the yard. I do not know whether cars reconsigned from the Pittsburgh produce [fol. 1778] terminal are handled first into the produce terminal from 43rd Street and, upon being reconsigned, handled in the reverse direction back to 43rd Street.

My Exhibit No. 231, page 5, indicates an average of 23 engine hours worked per day during the test period. I do not know how many of these 23 worked exclusively within the limits of the produce terminals nor between what points and in what service all of the other crews were working.

I would say that some of the switch engines included in the average of 23 per day performed industrial switching between the produce yard and the 43rd Street yard. I don't know whether any such cars ever reached the produce terminal at 16th Street. If any such cars went to the 43rd Street yard they were not included in my account of 13,529.

I can not give you the employees included in Account 373, Station Labor, page 9. I can not say whether any of such employees performed services in connection with re-coopering.

I believe it is a fact that at piers 27, 28 and 29 a portion of these recoopering charges is billed against other connecting carriers. There are no revenues derived from other than line-haul services from rentals, concessions, and so forth, in the produce terminal that I know of. The agency forces at this terminal do not perform any service for any traffic other than perishables that I know of. I do not know [fol. 1779] absolutely. I know it is strictly a perishable service there. These agency forces perform some services in connection with reconsignment of perishable freight cars, which cars would not be delivered at Pittsburgh.

I do not know how the record is kept of coal issued to yard locomotives as charged to Account 382 for the individual yards.

Turning to page 5 of my exhibit 231 where there are shown cars received and dispatched, loaded and empty, 13,529 cars for the test period, these cars represent the total number of cars loaded and empty, entering or departing from the 16th Street yard during the test period. I have not included in these 13,529 cars any passenger train cars switched by these yard engines during the test period; these are strictly freight cars shown here. I do not know with what carriers we interchange within the limits of the 16th Street yard. I do not believe there are included in the 13,529 cars all cars that are interchanged between 16th Street and other carriers. I can not say positively. I do not know whether any intra-terminal switching services were performed solely within the limits of the 16th Street yard for which switching revenues were collected. If there were any such, those cars were not included in my 13,529. I do not know whether any switching revenues were collected on inter-terminal switching performed in part within the 16th [fol. 1780] Street yard. I can not say whether it would be practicable from the standpoint of safety or operation, on account of curvature of tracks and things of that sort, to use 8-wheel locomotives in all parts of the 16th Street yard.

On page 5 of my exhibit it appears that with 2,799 engine hours, a total of 13,529 cars were handled during the test period, which is an average of about 4.8 cars per engine

hour. I would not say it was not possible to handle more than 4.8 cars of citrus fruit traffic per yard locomotive hour. I do not know whether they actually handle considerably more than that.

I would say that demurrage, storage, reconsigning and other charges are assessed against shipments handled in the 16th Street yard. No credit has been allowed on this exhibit for charges of that sort.

Referring to my Exhibit 210 showing expenditures account perishable terminal facilities, there appears for New York an item of $1,771,608.15. I believe a part of this amount is the $655.809.90 charged to Account 227 and $263,-979.59 charged to Account 241, which is being amortized over 20 years or the life of the lease. The figures shown on my Exhibit 210, amounts charged to capital account or total expenditure, are charged to both capital account and to operating expenses. I have not the figures here as to how much is charged to operating expenses or income and how much to capital account.

[fol. 1781] It appears from Exhibit 210 for Jersey City that there was a figure of $2,861,968.41 which was estimated as the cost of produce facilities which are a part of a large project. I do not believe that the large project referred to is the property used by the American Export Lines at Jersey City because we do not consider that from a perishable standpoint. I believe the American Export Lines tie up at that part of the property that is located between the Jersey City passenger station and the Pierhead in Harsimus Cove. I am not familiar with whatever use they may make of it.

I have not the figures with me to divide up the items that make up the figure of $6,071,454.77, account perishable terminals at Pittsburgh on my Exhibit 220.

ANTHONY BONN was recalled and further testified as follows:

Cross-examination.

By Mr. Gwathmey:

I have filed Exhibit No. 229 dealing with the terminal services performed by the Baltimore & Ohio Railroad at

Philadelphia. In connection with the third page of my Ex- [fol. 1782] hibit No. 229, showing yard maintenance, freight, I have followed the same method of computation that is used by Mr. Heywood; that is to say, the charges to Accounts 202, 212, 214, 216, 218 and 220 have been computed by applying to the 3636 locomotive hours made at this terminal during the test period the average hourly rates arrived at by dividing 1,473,509 yard locomotive hours made on the Baltimore division for 1928, 1929 and 1930, into the freight proportion of these yard accounts for the Baltimore division for the same years.

I would say that the charges constructed in that manner approximately represent the proper charges at the Philadelphia terminal. Of course, the Baltimore division covers a vast area, running from Philadelphia through Baltimore and on to Brunswick. I have made no attempt to compile the actual charges made to these primary accounts at the Philadelphia terminal yard for the three years shown. I found the detail man in a maze of detail and I called him off and used this shorter method. Those figures could have been obtained by a lot of work and a lot of presumptions perhaps because of going back into the accounts of the previous years. That is what I tried to avoid.

In computing the charges to these maintenance accounts in this manner, the engine hour basis gives weight to use, perhaps more so than if you used the other method, the [fol. 1783] mileage yard tracks. It gives account to use to a greater per cent; almost solely. I have worked it out on the other method and it changes the maintenance accounts by ten cents; that is, they would be reduced $3.86 to $3.76 by the other method of using miles of yard tracks. I did not mean I used the charges that were made to this particular yard. You take the Baltimore division and reduce it down to a cost per mile basis, then convert it into the miles of the particular terminal. I can not state the mileage in the Philadelphia terminals as used in my exhibit except from memory and I think it is something like 12 miles but I may be wrong. I will explain how the study which is referred to in column four on page 3, "Result of study of locomotives repaired to various classes of locomotives for the year ending June 30th, 1930," was made. I have written it out and I cut it out of my statement because it was so in detail. The Baltimore & Ohio have made certain office

studies in connection with steam locomotive repairs by classes of locomotives, separated between running and classified repairs and they reduced the results to an engine mile unit expense by classes for the combined repairs. For classified repairs the actual expense and mileage between shopping, are obtainable for the various locomotives in the several classes and the unit expense per mile is readily arrived at by dividing the total miles by total expense by classes [fol. 1784] of engines. No such information is kept for running repairs and only the total system expense for a monthly period is known, which includes all classes and types of locomotives with various tractive power pounds. The service mileages made by the locomotives in operation are kept for the different months and a multiplication of the mileage by the tractive power pound equals the grand total tractive power pound miles. What we have done is this: We have brought this tractive effort into our studies. That study is a system study. We have nothing but a system total for running repairs; therefore we had to get a unit cost for running repairs based on a tractive effort for the various locomotives. A division of the total tractive effort miles into the total running repairs secures a per mile unit for running repairs. This unit effort mileage expense is then used to segregate the running repairs to classes of locomotives by multiplying the total tractive effort miles for the several classes of locomotives by the unit effort miles expense. After the segregation of the total running repairs to classes has been made, the total service miles made by a particular class of locomotive for the month is divided into the segregated running repair expense. The average expense per service mile is obtained for running repairs, which expense is added to the mileage expense for classified repairs for the same class of locomotives and the [fol. 1785] result of the addition is service miles expense for both running and classified repairs. That is quite intricate. We have been running that subject starting with 1929. We carried it on through to the middle of 1930, when, by reason of the depression, we had to stop the work, therefore, we could not go back of the 1930 study and run back for a year to 1929. Switching locomotives were studied separately from the road locomotives. They are in their different classes. I am not a motive power man, but I just got this for my own information. Take your exhibit there, the Class C. G. is

a gasolene motor, used around the piers. The C-13 is a 4-wheel switcher; C-16-A is a 4-wheel switcher; D-30 is a 6-wheel switcher; L-1-A is an 8-wheel switcher and Q-1-AA is a Mikado used also in road service; Q-1-B is a Mikado and of course the Q-4-C-D and the Q-4 are all Mikados. These engines which I have just described are the engines that are actually used in the Philadelphia terminal, used in all classes of yard service. That is a cost for each class of locomotive for the system as a whole. You get all the system classes in this study. This figure is a system figure.

The yard force shown on page 4 of this exhibit is the actual force working during the test period on freight yard operations. We eliminated the passenger service; in fact, [fol. 1786] for our conductors, brakemen and yard enginemen we kept really a field study by having the men keep a slip of their actual services. None of these men performed any outside service. We eliminated the other service.

In my Exhibit, page 4, I have used the same method that was used by Mr. Heywood. That is, in computing the yard locomotive operations as shown on the right-hand side of the page, the 473,000 were engine hours made on the entire Baltimore & Ohio division, a division figure rather than a terminal figure.

This study assumes, in dealing with the Account 382, Fuel for Yard Locomotives, that the average consumption of fuel per yard locomotive hour is the same on all Baltimore division yards. That is irrespective of the size of the locomotives or the particular service that they happened to be engaged in; it is an average yard expense. I did not make any effort to ascertain the actual amount of fuel used by these locomotives in the Philadelphia yard during the test period. I took those accounts. While that is a system figure, it very closely corresponds to what we know as our east side, which is the Philadelphia terminal. I can not say whether the average charge-out price of fuel used in the yard service was at the same rate per ton during all of the years 1928, 1929 and 1930 as during the test period, but I would assume there would be a reduction; there would be a difference. I am not familiar with how the record is kept [fol. 1787] of coal issued for account of yard locomotives as charged to Account 382 but I imagine it is from our coal station at east side where the detailed record would be kept.

At page 5 where I show cars received and dispatched,

loaded and empty, a total of 19,151 cars for the test period, these cars represent the total number of cars, both loaded and empty, entering or departing from the Philadelphia terminal during the test period.

Our company interchanges within the limits of the Philadelphia terminal with the Reading and Pennsylvania. Our main interchange is with the Reading. We must have included in the 19,151 cars all cars that were interchanged with these other companies. I have not made a separate test of that to see whether or not it actually includes all of those cars that might have been interchanged. If they were dispatched at the east side yards they would be counted as a dispatched car, interchanged with the Reading.

This information was worked up by my detail man. I am not very familiar with whether intra-terminal services were performed during the test period for which switching revenues were collected, but I think that there is such in the Philadelphia terminals. Such cars were received and every car received at the beginning of the terminal would need to go into this account. To the extent that there were [fol. 1788] such intra-terminal switches, those cars were included in the 19,151. If that car was received in the terminal, came in from either the east or the west, during that period it would be counted. No credit was given on the exhibit for the switching revenue derived.

I do not know whether any inter-terminal switching was performed in part within the Philadelphia yard during the test period. I have not gone into that detail. I imagine in a terminal like that there would be some inter-terminal switching. If there was any such inter-terminal switching no credit has been made on that account. This is a total, loads and empties, received and dispatched against the expense of handling in the terminal. I would say during this test period there were cars of perishables received from connections at Philadelphia handled in the perishable terminal. There were those that came in from the Reading, from Park Junction but I have not, of course, checked that detail to know what is embraced in those 453 cars. If there were any such cars they were included and counted for both in, loaded, and out, empty, in the total of 19,151. I did not allow any credit in my statement for the use of our

tracks in the produce terminals in connection with handling cars of that sort.

On page 8 of the exhibit it appears that a total of 10,234 cars were handled at the fruit terminals. I have no reason [fol. 1789] not to think that only 10,234 cars were handled in our terminals during the entire twelve months' period, August, 1930, to July, 1931. An average of 851 cars a month is a little in excess of what we had previously because we had a very good watermelon season in the summer. In 1930 we handled 8,677. In 1929 we did a little better; we handled 9,564. I could not say what proportion of the total of 10,234 cars were placed in cold storage in the terminals there. We have the cold storage plant there and there must have been some but I could not state the number.

I am not very familiar with what is known as the Quaker City Cold Storage Plant. I know that it is a part of this produce terminal. I could not say whether any considerable portion of these 10,234 cars were actually unloaded by consignees. The Baltimore & Ohio Railro[illegible]aying the expense of unloading. If there are any cars in [illegible]at 10,234 that are not handled by the Baltimore & Ohio, of course we are in error. If we did not handle with this labor and this force any of these cars they ought to be eliminated.

The Interstate Commerce Commission, in Ex Parte 104, has very recently held some hearings with respect to our operations in the Philadelphia terminal yards. I can not tell you just what the relationship is between the Quaker City Cold Storage Company and the Baltimore & Ohio Rail-
[fol. 1790] road Company. I am not familiar with the operation of that terminal. I do not know whether perishables are ordinarily sold at auction on arrival in the Philadelphia Terminal. I have been down there twice. I have never been at any auction. My understanding is that there is no charge whatever against the shipper when cars are auctioned there and unloaded by the B. & O. I can not tell you whether cars of perishables are loaded into the storage plant of the Quaker City Cold Storage Company and held there without storage charges. I do not know whether part of the space in those facilities is actually reserved to the B. & O. Railroad. It is not my understanding that there is any credit allowed in my cost study for charges that have been made by the Baltimore & Ohio Railroad in connection

with any matters of that sort. I do not think they make any such charge because I do know that we get a labor charge from the Jersey City Company. They shuttle this back from the Quaker City when it is put on sale, as I understand it. That was the explanation for some of this labor charge, this outside charge we get. I do not know whether all of these matters were fully developed in Ex Parte 104 before Director Bartel.

Mr. G. S. Harlan is our general freight agent. He testified as to Philadelphia in Pittsburgh.

I did not answer your question as to the number of cars [fol. 1791] received and dispatched for 1928, 1929 and 1930. These are for the periods August 18 to 31, 1928, 20,901; 1929, 23,417; 1930, 22,521.

GEORGE W. LAMB was recalled and further testified as follows:

Examined by Mr. Gwathmey:

I have made some study and analysis of Mr. Heywood's Exhibit No. 230. At page 3 of Exhibit 230 Mr. Heywood shows the charges at Harsimus Cove yard for the 15 day test period for Accounts 202, 212, 214, 216, 218 and 220, the charges being recapitulated on page 2 of the exhibit under maintenance of way and structures, total $8,684.20; deducting Accounts 208, 210, 227 and 241, aggregating $5,490.07 leaves for the original accounts $3,194.13. As the test period covered 15 days if we multiply this total by 24 we obtain the approximate total for one year of $76,659.12 as applicable to the 179,609 feet of track shown on page 6 of Mr. Heywood's exhibit 230. This is equal to 34.01 miles of track. Dividing the total maintenance charges for a year, $76,659.12 by 34.01 miles gives as the maintenance per mile of track $2,254.02.

I now file as part of my testimony Exhibit No. 319, [fol. 1792] which is a statement showing for the year 1930 for the Pennsylvania system charges to each of the primary accounts dealt with above separately for total passenger and freight combined and for yard accounts only. The total miles of yard tracks and sidings of the Pennsylvania Railroad for 1930 was 8,511.33 miles, excluding industrial

tracks. Dividing this mileage into the yard expense total of $3,936,348.59 gives as the cost per mile $462.84. Dividing the same mileage into the freight yard expenses for these accounts gives $405.01. The total miles of first, second, third, fourth and mainline tracks, yard tracks and sidings for the Pennsylvania Railroad system was 25,052.99, excluding trackage right and one-half mileage of the West Jersey and Sea Shore, the latter company's mileage being included in the Pennsylvania Railroad figures as of July 1, 1930. From a similar computation we obtain as the average cost per mile of all tracks operated by the Pennsylvania Railroad Company for 1930, $1,452.06 and for freight proportionate charges to the same account $1,005.42 as compared with an average cost of maintaining yard tracks in Harsimus Cove yard of $2,254.02, as shown by Mr. Heywood on his Exhibit 230. In my opinion, any assignment of costs of maintenance which would show for yard costs more than twice as great as the yard costs per mile of maintaining not only main line tracks to the standard maintained by [fol. 1793] the Pennsylvania Railroad as well as yard track sidings, there must be something radically wrong with the figures when the yard costs per mile of road exceeds the cost of maintaining main line tracks of the Pennsylvania. In my opinion these figures clearly demonstrate the unreliability of the figures used by Mr. Heywood.

I have a criticism of the charges to Account No. 241 shown on page 3 of. Mr. Heywood's Exhibit No. 230 as $4,916.52 for the 15 day test period. If $4,916.52 represents 15 days' maintenance and we total the figures we have $9,833.04 as the charge for one month. Multiplying those figures by 12 we get $117,996.48 as the cost of repairs to wharves and docks for one year. If you will refer to page 6 of Mr. Heywood's Exhibit No. 230, you will find as the 5th item "Transfer bridges Nos. 3, 4, 5, 6 and 7 and fixed machinery" and under the column headed "Assessed Valuation" the amount of $123,698. Therefore, under Mr. Heywood's method of assigning maintenance charges to Account 241 in the first year the cost of maintenance would exceed 95 percent of the entire cost of the facility, leaving only $5,601 for the second year or succeeding years. Again, I think this demonstrates that the figures are absolutely unreliable as reflected in Mr. Heywood's exhibit.

I would like to file as Exhibit No. 320 a similar statement to that filed for the Pennsylvania Railroad, Exhibit 320 [fol. 1794] being for the Baltimore & Ohio Railroad. It will be noted from this statement that taking the same accounts shown on Mr. Bonn's Exhibits 202, 212, 214, 216, 218 and 220, the total freight and passenger costs per mile of track maintained for yard account was $575.78; for yard and other accounts $1,229.77; for freight proportion yard accounts, $552.21; for yard and other accounts $982.38; the mileage being shown at the bottom of the exhibit. From a hasty calculation just made of the same track accounts, which aggregate $2,961.24 for 14 days or $77,204.08 per year divided by 12 miles of track, would show the cost per mile of $6,435.73, for one mile of track, as shown by Mr. Bonn's Exhibit, as compared with $552.21 for the freight proportion of the same accounts for the entire Baltimore & Ohio system.

I think that this indicates the fallacy of using the locomotive engine hours in assigning maintenance expenses to yard terminals.

Some questions were asked Mr. Heywood this morning regarding the land used in Harsimus Cove yard.

I now file as part of my testimony, Exhibit 321, photostatic copies of pages 117, 118, and 119, of Valuation Reports of the Interstate Commerce Commission, Valuation Docket No. 928, the Pennsylvania Railroad Company et al. I merely call attention to the bottom of page 117, to the [fol. 1795] area leased to private parties, which shows the figures referred to by Mr. Gwathmey in questioning Mr. Heywood this morning. It will be noted on page 118 that the carriers' contended that these lands are used in common carrier service and that they are not only willing but ready to credit rentals received therefrom to the operating income account instead of the miscellaneous rent income account as now required by the Commission's classification. Immediately following that is this: "We are of the opinion that the areas are used primarily for private business purposes and that their use for common carrier purposes is incidental."

This statement will show that, for example, the 35,428 square feet located in Jersey City are rented to wholesale dealers engaged in the business of storing and distributing

butter, eggs and packing house products; 693,000 square feet and the improvements thereon owned by the same carriers, are leased to the Jersey City Stock Yard Company. On page 118 various areas, aggregating 225,789 square feet adjoining the terminal facilities in Jersey City and owned by the United New Jersey Railroad & Canal Company are rented to various individuals.

I call attention to page 119, the 4th paragraph, reading as follows: "Upon a review of all the facts, we are of the opinion that the classification as non-carrier of these areas [fol. 1796] is proper, with the exception of the parcel in Harrisburg. The common carrier use of that parcel was imminent on Valuation date."

Mr. Gwathmey: We ask that the three exhibits be received.

(Said documents, so offered, were received in evidence, marked Exhibits 319, 320 and 321, Witness Lamb.)

Cross-examination.

By Mr. Eshelman:

The valuation date was June 30, 1918. In referring to the fallacy of using an engine hour basis for dividing maintenance charges, I am referring to the assignment of maintenance expense on Mr. Heywood's exhibit. He used the engine hour basis to assign his maintenance expenses, using the entire New York division cost per engine hour and multiplying it by the engine hours in the Harsimus Cove yard. If I were making an investigation during the time that the Eastern carriers have had I would have endeavored to have gone back and assigned my maintenance charges direct to the yard. I have done it in several cases and there are various bases of doing that, formulas for assigning the expense. It is a job. You have to analyze your charges and issues, but you can get it. I have not my formula here before me, but I have done it and I think you folks have [fol. 1797] what is known as the Sauer-Culbertson formula that might explain in a way how you can do it. I can state I have made costs and other analyses of the yard expenses. We have staked off the different sections of the yard, and through an analysis of vouchers, determined the charges and the maintenance issues through the cooperation of the engineering department and developed maintenance charges to that yard. Such a basis would possibly require the use

of arbitrary assumptions in dividing the costs. You may run into some accounts you can not directly assign. I think that is probably true. It would involve some assumption. My studies frequently involve some assumptions. I can not recall the basis I used. I would have to refresh my memory because it has been some years since I did that.

It may be necessary to make certain assumptions in any study but in my opinion you can certainly bring your costs down more closely to the unit involved rather than taking the entire New York division of your accounts. I think you can assign your expenses to the yard and develop more accurately the costs. Your issues of fuel could be absolutely determined from your coal used, as issued to each locomotive.

As to the time I had for my studies, the preliminary work in connection with maintenance took a much longer time [fol. 1798] than any other part of the study. It required the engineering department to go through their records and get their issues of materials and supplies. Then we put a test in at a number of different terminals and got the actual costs during a few weeks' period or a month's period. Those studies were made at Louisville, at Nashville, I believe at Birmingham, Alabama, and at various other points on the L. & N. system.

I think my records in the respects referred to by me or by my counsel this morning in the matter of classification of accounts are kept in accordance with that paragraph which our counsel read. I would not want to make a definite statement as to that but I am quite sure we do keep them because we had some occasion in some recent instances to develop terminal costs in certain yards. The road I am connected with now is the Atlantic Coast Line. The tests I made and referred to a minute ago were when I was connected with the Louisville & Nashville Railroad and they were made some 15 or 20 years ago.

[fol. 1799] J. H. KETNER was recalled and further testified as follows:

Examined by Mr. Gwathmey:

The information I have from various sources shows that as to perishable traffic the B. & O. makes no charge for un-

loading at its perishable produce terminal at Philadelphia; neither do they make any charge for piling or sorting, according to marks and kinds. This piling and sorting is under the direction of the auction office representative and is piled and sorted according to a catalogue prepared by the auction company. That is, the service is without charge. The auction company is furnished space on the terminal at a nominal rental of from five to ten dollars per annum. The B. & O. also performs additional free services, such as cars of perishables ordered to cold storage at the Quaker Cold Storage Company, which is a part of the B. & O.'s perishable products terminal, where the cars are immediately unloaded from the refrigerator cars and placed in B. & O. assigned cold storage space on the first floor of the Quaker City Cold Storage plant, where it is placed in cold storage free of charge, for a period within the 48 hour free time. This is also without charge. By doing this the B. & O. relieve the consignee of the expense incident to reicing the refrigerator cars when held at destination as provided in Rule 225, Paragraph G of Supplements 17 to Agent [fol. 1800] Dearborn's Perishable Protective Tariff, I. C. C.

I understand the Pennsylvania Railroad at Philadelphia also performs unloading service without charge as provided in its I. C. C. 355, Item 810. All of those facts concerning service performed at the Philadelphia terminals were testified to recently by witnesses for the Baltimore & Ohio Railroad in Ex Parte 104, Part 2. That is the investigation dealing with the terminal practices of carriers.

Cross-examination.

By Mr. Beach:

I am not attempting to give a resume of that testimony; I am just giving you the facts that were developed in that testimony. The testimony in that case simply confirms what we understood was the practice.

By Mr. Eshelman:

If I said "piling and sorting" I meant to say piling and stowing. The free storage is in connection with the cold storage at the Quaker City plant. I did not mean storage beyond the 48 hour free time, but there should have been

a charge for that 48 hour free time. There is a charge in the perishable protective tariff where the stuff is held in the station and the cars are reiced and the carrier makes [fol. 1801] a charge for that under the cost of ice basis, Rule 225. By taking the stuff out of the cars and putting it in cold storage free of charge you are relieving the consignees of that expense. This is before the Commission in Ex Parte 104.

H. M. BASSETT was recalled and further testified as follows:

Examined by Mr. Calhoun:

I will first distribute an exhibit consisting of one sheet, headed "Supplemental to Exhibit 228". (Said document was received in evidence, marked Exhibit 322, Witness Bassett.)

I have no apologies to make for having used in my Exhibit No. 228 a method of segregation of investment between freight and passenger service, based upon the ratio of their respective operating revenues. Witness Lamb in his earlier exhibits, Nos. 91 and 92, predicated his 3 to 1 comparison of performance in the two territories on a revenue basis. Again, in his Exhibits 300 and 301, comparing the C. F. A. group performance with certain Southern railroads he again proceeds upon a base of segregation founded on relative revenue of the two services. However, Witness Lamb, [fol. 1802] at page 1538 of the record, condemns the use of respective service revenues as a base of such segregation of investment.

My Exhibit No. 228 was prepared to illustrate that over a period of 3 years, 1928, 1929 and 1930, there had been substantial parity of performance in the Eastern-Southern groups and the data set forth thereon in item 33 shows such parity as practically achieved, but I knew then that had I used a method of segregation of investment between freight and passenger services based upon the ratio of their respective operating expenses, the results would have been still closer and, as Witness Lamb desires this basis, I submit herewith Exhibit 322 prepared on his theory.

Using 1930 as illustrative, I show the ratio of revenues to expenses, including investment, taxes, and so forth, was

for the Eastern district .9405 and for the Southern region, same period, .93198. Those figures are shown in item 22 on Exhibit 322 in the third and sixth columns, a difference of about .00857—an infinitesimal variation, 9 mills in a dollar.

My Exhibit No. 228, for the same comparison, based upon a revenue apportionment, to which Witness Lamb objects, showed a difference of .03 or 3½ times as great as Exhibit 322. Like comparisons may be made with the other years indicating that the expense basis of segregation produces [fol. 1803] results showing almost absolute parity of performance between the two groups and since Witness Lamb condemns Exhibit 228 I am willing to substitute Exhibit No. 322 in place of Exhibit 228 and adopt as applicable to this latter exhibit all of the testimony I gave pertinent to Exhibit 228.

I have reviewed the decisions of the entire Commission known as "In the Matter of Divisions of Freight Rates in Western and Mountain Pacific Territories," 148 I. C. C. 457. I understood the decision in that case was written by Mr. Commissioner Eastman. That decision, beginning at page 474, contains the formula which was employed by the Commission in dealing with the matter of divisions of freight rates in Western and Mountain Pacific territory. I have employed that same formula in connection with the issues in the present proceeding, and have prepared an exhibit consisting of two sheets, which will now be distributed.

Mr. Calhoun: We will ask that those two sheets be marked Exhibit 323 and that sheet 1, the sheet with the sub-heading reading "Based Upon Book Investment Plus Cash, Materials and Supplies" and the second sheet, containing the sub-heading "Based upon Findings of I. C. C., in Ex Parte 74, Plus Net Additions and Betterments, Class 1 Railroads", be received in evidence.

[fol. 1804] (Said document, so offered, was received in evidence, marked Exhibit 323, Witness Bassett.)

Both of the sheets of this exhibit cover only Class 1 railroads. Both sheets cover all of the Class 1 railroads in Southern territory and in Official Classification territory.

In 148 I. C. C. 457, on pages 474 to 476, inclusive, the Commission took the book investment in the two groups

under discussion—that is, the Western Trunk Line and the Southwestern—they took the net railway operating income and its percent on investment; they took the amount of such income which would have been necessary to produce a 5¾ percent return and the amount by which the actual income fell short of that return. Then the problem was to spread this deficiency between the freight and passenger service on a basis fair for purposes of comparison. It was found that such statistics showed the passenger operating ratios were different in the Western Trunk Line group than in the Southwestern; therefore, the Commission first apportioned to passenger revenue in the Western Trunk Line group enough of the deficiency to make the passenger operating ratio in Western Trunk Line territory the same as in the Southwestern territory and then apportioned the remainder of the deficiency between the two services—that is, passenger and freight—in the ratio of their revenues as [fol. 1805] thus modified. The result of these computations under the Commission's theory was to indicate that the cost of service, including a fair return on investment was from 17 to 20 percent greater in the Southwest than in the Western Trunk Line group.

My Exhibit 323, consisting of two pages, which I now offer, has been prepared upon the Commission's theory as advanced in 148 I. C. C. 457, and makes a comparison between the performance in the Eastern district and the Southern region. The period covered is the 10 years ending December 31, 1930, inclusive, and page 1 of the exhibit starts with a base book investment in road and equipment plus materials, cash and supplies, just as the Commission started with in I. C. C. 148; whereas page 2 is based upon the finding of I. C. C. in Ex Parte plus the net of additions and betterments to December 31, 1930; the net railway operating income and its percent on investment, the amount of such income which would have been necessary to produce a 5¾ percent return and the amount by which the actual income fell short of that return as shown. This deficiency was spread between the freight and passenger service in the manner followed in 148 I. C. C. 457.

Exhibit 323 also shows that the passenger operating ratio was higher in the Southern region than it was in the Eastern District and, therefore, in accord with the Commission's [fol. 1806] theory in 148 I. C. C. 457, I apportion to pas-

senger revenues in the Southern region enough of the deficiency to make the passenger operating ratio in the Southern region similar to that of the Eastern district. I then apportion the remainder of the deficiency between the passenger and freight services of the two groups of railroads just as the Commission did in 148 I. C. C. 457, namely, in the ratio of their respective service revenues; that is, the ratio of their respective service revenues as thus modified. The result of my computation for the instant case, following the Commission's formula in 148 I. C. C. 457, shows that the excess expense of freight service including a fair return on investment, in the Southern region over a period of 10 years, ending December 31, 1930, was not more than 2.99 percent greater than was the expense of like service in the Eastern district, whether, as per page 1, we use the book investment or as per page 2 the Ex Parte 74 basis. In other words, it is a coincidence that my results came out the same on each of the investment bases; either scheme proving the other. I have no further comments on this exhibit.

I have one more matter I would like to touch upon just a moment. In relation to my prior testimony and exhibits pertaining to the use of the so-called 3 to 1 theory for distribution of traffic units and Witness Lamb's condemnation [fol. 1807] of my exhibits, because I made use, for illustration of my testimony, of some railroads not primarily engaged in the citrus fruit transportation business. It seems that Mr. Lamb must have evidently misunderstood the entire purport of my testimony and exhibits. As such they were directed at the absurdity and falsity of the 3 to 1 theory and I could just as well have used any railroad or number of railroads located anywhere in the United States as illustrations to have demonstrated the 3 to 1 theory as untenable.

L. H. KENTFIELD was recalled and further testified as follows:

Examined by Mr. Beach:

I have a short statement to make with respect to Mr. Doss' criticism of my prior testimony. At page 497 of the record I was asked the following question: "What was the

normal basis for determining the northern lines' specifics on citrus fruit traffic to points in Trunk Line and New England territories?" As to this I answered: "Third class specifics which were stated in cents per 100 pounds but which were converted to 80 pounds per box unit by taking 80 percent of the 100 pound factor. This normal basis, [fol. 1808] however, was only applied at interior points and was never applied to the ports to which points divisions were first established."

Mr. Doss at the last hearing indicated he did not agree that third class was the normal basis for determining the northern lines citrus fruit specifics. In that connection I invite attention to Mr. Ketner's testimony at the first hearing, pages 189 and 190 of the record as follows: "When we had occasion to establish rates to Eastern destinations other than Eastern cities and points taking the same rates, the general practice was to take this proportional factor of 37½ cents from Jacksonville when from beyond to Richmond and combine it with Eastern lines third class specific equated to the proportion in cents per box."

Whether we call it the normal basis or the general practice for determining the northern lines' specific, the fact is that to interior destinations within Trunk Line territory, other than Eastern ports and points taking the same rates, the third class specifics equated to cents per box represented the Eastern lines usual citrus specifics.

In connection with Mr. Doss' criticism of Exhibit No. 113, at page 1250 and page 1251 of the record, a check develops that this exhibit correctly reflects the tariff and divisional situation in effect on that date. The specifics referred to by Mr. Doss as the correct ones were published on [fol. 1809] June 1, 1909, but states that they were actually made retroactive to December 15, 1908. While the records to which I have had access do not show that these specifics were applied retroactively, as Mr. Doss has indicated, I am willing to accept his word for it and have, therefore, re-worked Exhibit 113, using the June 1, 1909 specifics and I now desire to present this exhibit. It has been distributed.

(Said document, so offered, was received in evidence, marked "Exhibit No. 324, Witness Kentfield.")

It consists of two pages. I might mention in passing that to New York, Philadelphia, Baltimore, Boston and

Washington, the Eastern cities, which this record indicates, receive a large proportion of the citrus fruit movement, the figures on my prior exhibit are not affected by the June 1, 1909, specifics.

An adjournment was taken until 10 o'clock A. M., December 21, 1931.

[fol. 1810] Washington, D. C., December 21, 1931.

Met pursuant to adjournment.

Present: Same parties as heretofore noted and the following additional appearances: Mr. John J. Johnson, representing C. W. Galligan, Chairman, Illinois Freight Association, 1725 Transportation Building, Chicago, Illinois, appearing for Illinois Lines which do not also operate in C. F. A. and/or Southern Freight Association territories, for example, Alton R. R., A., T. & S. F. Railway, Chicago & Northwestern Railway Company, Chicago, Burlington & Quincy Railroad Company, C. M. St. P. & Pacific Railroad Company, Chicago, Rock Island & Pacific Railway, and Illinois Terminal Company.

J. L. Heywood was recalled and further testified as follows:

Examined by Mr. Eshelman:

I have since the last hearing in this case made a certain further check of my cost studies embracing the New York terminal operations with a view to determining whether they should be changed in any way by reasons of questions of complainants as to whether my studies were dependable. I have prepared a statement and exhibit for introduction at this time along those lines. That statement and the [fol. 1811] exhibits are true and correct to the best of my knowledge and belief.

On October 19, 1931, I submitted Exhibit No. 230, covering a partial cost study of the handling of perishable freight, Harsimus Cove Yard to Piers 27, 28 and 29, New York, which was further discussed at hearing on November 18, 1931, at which time certain questions were raised as to the details of the statistical data and the operating features involved.

In order that there may be a clear understanding of the territory studied in the Harsimus Cove Yard, I offer as an exhibit, map showing the tracks, facilities, and adjacent territories, including the names of the industries, warehouses, etc., located in that contingent territory, there being no industrial plants or commercial enterprises other than the Berwind-White Coal plant embraced within the terminal area studied.

(Said document, so offered, was received in evidence, marked "Defendants' Exhibit 325, Witness Heywood.")

We have indicated by yellow line the boundaries of the area comprising that section known as Harsimus Cove Yard which was shown on page 6 of Exhibit No. 230 as 105.18 acres with an assessed valuation of $11,043,900, but which in reality, it has been developed by recheck, actually includes an area of 109.215 acres with an assessed value of [fol. 1812] $11,467,575.

We submit at this time an exhibit which indicates in detail how the 109.215 acres were arrived at.

(Said document so offered was received in evidence, marked "Defendants' Exhibit 326, Witness Heywood.")

It will be noted that the additions constitute 6.682 acres Pierhead Line to Henderson Street, which is known as first class taxable property through Harsimus Cove Yard, this item having been overlooked in the original survey because it appeared as a separate item. It will also be noted the exhibit recognizes the fact that the Berwind-White Coal Pier and Plant's 1.86 acres should not have been included in the original figures.

The exhibit represents the area covered in the tax payments of the year 1930, but actually covers the physical layout of the year 1928. The portion outlined in green on the map, covering 9.502 acres, is now occupied by bridges 8 and 9 and the tracks serving said bridges. The taxable property in 1931 will include such area. This portion of the yard was not used during the test period. On the other hand, that portion of the map outlined in brown was property used in railroad operation in 1928 and consequently included in the taxes paid in 1930, but is today occupied by Pier "F" and in part by Pennsylvania Dock and Warehouse Company and which is today recognized as non-car-

rier property although, on account of the fact that 1931 [fol. 1813] taxes will be based upon 1929 physical situation, the Pennsylvania Railroad will pay taxes on this property as carrier property. Considering the addition of the 9.502 acres represented by the green outline and the exclusion of the 9.57 acres represented by the brown outline, the 109.215 acres represented by the exhibit just filed will become 109.147 acres in the year 1931, in so far as the physical layout is concerned.

On the map which has been introduced as Exhibit 325 the area enclosed by the yellow represents that portion of the Harsimus Cove Yard which was considered in the original as 105.18 acres for the purpose of figuring the taxes assessable to the property used as yard property. I do not mean to say that Harsimus Cove Yard does not include a greater area than 105 acres. It does include a larger area, but the part that is enclosed in yellow is the land for which we pay taxes and included taxes in the study.

The portion which is outlined in brown covering Pier F, etc., was included in my study; that is to say, I included taxes against that land in my study, but that should have been excluded as of 1931.

This section outlined in green actually was used as a part of the physical yard and layout in connection with this traffic in 1931 but through oversight I did not include the taxes for it. With respect to the part that is outlined in orange, [fol. 1814] the Berwind-White Coal trestle, I originally included taxes on that underlying land but not now in the recheck. It should not have been included.

The section through the main line of the yard is a strip 100 feet wide. It was omitted due to an oversight and the fact that it was assessed separately from the assessment of the rest of the yard and in computing the figures it was overlooked. The reason it was assessed separately was that the State of New Jersey considers 100 feet wide of every piece of railroad property, transportation property, first class property and the sidings and the adjacent tracks thereto are considered second class property. The 100 foot strip extends down to the bulkhead line from Henderson Street and then on out to Brunswick Street.

My Exhibit 326 simply shows what the area would have been instead of 105 and a fraction acres had I included this 100 foot strip which I omitted and had eliminated the Ber-

wind-White Coal plant and made a correction in the overstatement in the pieces between Henderson and Brunswick Streets.

The point I am making is that based upon the showing which I originally made I should have used substantially 109.215 acres but that figure would have included Pier F, the territory outlined in brown, and would have excluded the [fol. 1815] territory outlined in green. Were the territory outlined in brown excluded and the territory outlined in green included, the resultant figure would be slightly less or 109.147.

The properties outlined in red are the properties which Mr. Lamb showed in his Exhibit 321 as non-carrier property in the valuation order. That covers the square footage as stated in pages 117, 118 and 119 of our valuation report and are without the 105 acres which were included in the yard. I did not include any taxes against that property in this study. The taxes which I included for the territory outlined in brown, the Pier F property, were taxes only on the land and nothing on the improvements. It is fair to offset, as far as it goes, the 9.502 acres in the territory outlined in green against the 9.57 acres outlined in the Pier F territory. The land is taxed at the same value.

Mr. Gwathmey: Do your question and answer embrace both taxes and interest?

Mr. Eshelman: My questions were not intended to cover anything about interest.

Witness: The net effect of these adjustments on Exhibit No. 230 is to increase the taxable property properly includable in the cost study. It is evident, therefore, that we [fol. 1816] have presented a conservative figure.

On the map exhibit has been outlined in red, non-carrier properties which it will be noted are entirely without the territory included in the yellow outline. Of the portion outlined in red adjacent to bridges 8 and 9, we have indicated by green, as previously stated, the section which, while non-carrier property at the time the I. C. C. Valuation reports were made, and which are quoted in Exhibit No. 321, filed by Mr. Lamb, subsequently became carrier property by the removal of structures thereon and the laying of

tracks for the purpose of serving bridges 8 and 9 and other uses.

At the previous hearing, counsel for the plaintiffs, inquired whether certain properties, 22 in number, were included in the 105.18 acres shown on page 6 of Exhibit No. 230, the Berwind-White Coal Company's pier and plant, The Pennsylvania Railroad Jersey City freight station, together with pier warehouses "K" and "L", and the property designated in the list as the terminal of the American Export Lines, were located in the area of 105.18.

When I say they were located in the area of the 105.18 acres, I mean they were located within the outline enclosed by yellow. If I had shown the 100 foot strip that I left out the area would have been, even with the exclusion of the Berwind-White, 109.215. When I said that these various [fol. 1817] amounts like Berwind-White, Jersey City freight station, pier warehouses K and L and the American Export Lines pier have been included within the yellow area or having been included within the 105 and a fraction acres I meant that that yellow outlined area was greater in amount than 105 acres.

However, as stated hereinbefore, the taxation was based upon the physical layout of 1928, at which time the property incorrectly listed by complainants as occupied by the American Export Lines was carrier property and, therefore, properly taxable and includable in the 105.18 acres. The Berwind-White Coal Company's plant should not have been included, as has already been stated. With the additions and modifications as mentioned before, the 105.18 acres was considerably short of what could have been included in the cost study as property assessable for carrier's use. Furthermore, in connection with valuation section 1.01 New Jersey, incorrectly stated in the record as $1,414,927 instead of $1,414,090, this figure represents the gross valuation of transfer bridges 3, 4, 5, 6 and 7, together with timber decking of bulkheads, and piers F, G, H, J, K and L. Of these properties, the assessed valuation for the transfer bridges only, has been included in the exhibit, whereas the valuation of Piers H, J, K and L could have been, with justice, in- [fol. 1818] cluded, since these facilities were used in the handling of the 24,962 cars considered in this study,

While we have clearly shown on the map exhibit, and the explanation thereof, that non-carrier property has not been

included in the acreage covered by the exhibit, other than the Berwind-White coal trestle, it may not be amiss to state definitely, since the question has been raised, that there are no express houses on the connecting track between Harsimus Cove Yard and Jersey City Passenger Station.

Transfer bridges 3, 4, 5, 6 and 7, considered in the study and included on the map exhibit, are used almost exclusively for the handling of cars between Harsimus Cove and the New York side, there being an occasional exception, such as the floating of cars to the Hoboken Shore Railroad Company, at Hoboken, New Jersey. They are used exclusively for transfer of cars.

It was the maintenance charge for these bridges, as well as Nos. 8 and 9, that appeared in the amount shown under Account No. 241, no expense attributable to Piers H, J, K and L or the Berwind-White trestles being included therein, although just as the valuation of Piers H, J, K and L might have been included in the assessed valuation, so also the maintenance charges covering these piers could have been a proper charge in the expense factors.

[fol. 1819] The locomotive repair rate used in Exhibit No. 230 is that rate in current use by motive power department and was ascertained by treating the costs of class repairs and running repairs separately. Class repairs for the test period, 1914 to 1917, inclusive, were brought up to date by the application of factors representing variations in material and labor costs. Running repairs were likewise based upon the past period of time, the exact dates not being available, but were considerably subsequent to 1917 and were adjusted to present day levels in the same manner as class repair figures were by considering the changes in material and labor costs. That the running repair rates are proper measure of present day costs was determined by a test check in the year 1930.

Those figures are used currently by the Pennsylvania Railroad for their own system inter-company use. They are lower than what would be used for billing outside parties. These figures are parts of costs that enter into I. C. C. statistics. Our company regards them as conservative and dependable.

No distinction was made in the services of locomotives as between road and yard in accumulating the expense from which the rates were derived. It should be understood in

the actual operation of Harsimus Cove Yard, the crews assigned to classification and internal yard shifting are not [fol. 1820] used beyond the yard limits, in the transportation of freight to and from other yards, but confine their activities to the terminal. When it is necessary to move cars from Harsimus Cove Yard to another yard, for instance, Meadows, or to the interchange tracks of other railroads, none of which are located in Harsimus Cove territory, such services are performed by what is known as "runner crews". Neither the wages nor the engine hours of these inter-yard movements have been included in the cost study.

The yard crews, other than enginemen and firemen, on first trick, namely, from 7 A. M. to 3 P. M., are manned by one conductor and two brakemen, with an occasional crew of one conductor and one brakeman. On second trick from 3 P. M. to 11 P. M., the crews are operated by a conductor and two brakemen, a few of the assignments being made up of one conductor and one brakeman.

Since the last hearing I have had occasion to make an investigation concerning the matter about which I am now testifying.

By Mr. Gwathmey:

I went over the entire record of the questions which you raised which were operating as well as statistical and went on the ground in Harsimus Cove and got in touch with the operating men on the ground. I spent several days observing the operation and he pointing out the features of the [fol. 1821] operation to me. I spent approximately four days in the yard. I spent about two days of my time at Harsimus Cove, on November 30th and December 7th. I was not there the entire day on the 30th. I was there from around 11 o'clock, I should judge, on up until around five. I was not there at night.

The third trick, that is, from 11 P. M. to 7 A. M. is covered by crews with one conductor and two brakemen and a few crews maintained with one conductor and one brakeman. On all of these tricks, however, on account of the classification work being to some extent performed by gravity operation, it is necessary to keep in service a sufficient complement of car riders to properly handle that work, varying from seven men on the first trick to an average of fourteen men on the second trick, being reduced to ten men on the

third trick. In addition there is a force of switch tenders varying from seven to ten men per trick.

These crews are used exclusively in freight service, performing no switching whatever at Jersey City Passenger Station, and all of the 24,962 cars empty and loaded which were handled, were freight equipment.

By Mr. Eshelman:

Following the last hearing, for the purpose of determining the facts raised by complainants' questions I had an investigation made at my own instance with respect to the [fol. 1822] facts to which I am now testifying, in addition to the facts which I myself developed by my own visit to the yard. Men from the accounting department office, working under my supervision and direction, went on the ground to make personal inspections of the territory and to develop the facts which are embodied in part in my testimony.

There is submitted as an exhibit, a statement showing by days the division of the 24,962 cars between loaded and empty, further subdivided to show those cars arriving and departing in Pennsylvania Railroad trains, arriving and departing in runner or transfer service, etc.

Mr. Eshelman: We offer that exhibit.

(Said document so offered and received was marked Defendant's Exhibit No. 327, Witness Heywood.)

The engine hours used in the cost study represent all the movements within the yard territory, including such work as classification, shifting of hold tracks, movements to and from float bridges, etc., whereas the cars handled are the total reached by counting the cars moved into the yard and those moved out of the yard. As a result, a unit representing the cars handled per engine hour, based upon the factors just quoted, and represented numerically on the Exhibit, is not a measure of the total number of cars handled per engine hour. To obtain a figure adequately depicting such unit would necessitate the inclusion in the cars handled [fol. 1823] of all of the movements made by each car while within the yard territory, and, to use such a figure in deriving the average cost per car, would have resulted in a unit cost of no value, since the term "Cars Handled" under those conditions would represent the number of movements made by a car and not the number of cars.

On a straight away basis from the entrance of the yard limits on the land end to the outgoing movement at the other end, a car loaded with citrus fruit would travel approximately 1½ miles. In reality, however, because of the internal movements; such as, from classification tracks to hold yard, from hold yard to float bridges and the like, a car loaded with citrus fruit traverses a considerably greater mileage, there being no limitation as to confining the movement of citrus fruits to any particular tracks within the yard.

The classes of power used in Harsimus Cove Yard, as shown by page 5 of Exhibit No. 230, are not all used throughout the entire yard territory.

The A5s locomotives, which have a tractive power of 30,192 pounds and have four drivers, and the B6sa and B6sb locomotives, tractive power 36,144 pounds, drivers six, are used in what is known as the "Ball Ground" territory. The B6's and the H6's, the latter locomotives varying in tractive power from 42,168 to 43,841 pounds and [fol. 1824] having eight drivers, are used in all other portions of the yard, consequently are engaged in classification work, the loading and unloading of floats through float bridges, the shifting of cars in and out of hold tracks, and similar services. The work of the "A" and "B" locomotives in the "Ball Ground" territory is confined to the placement and removal of cars in that portion of the yard. Were it not for the fact that industries located outside of the yard limits are situated on tracks of such sharp curvature as to require the use of the small type of power, represented by the "A" class, there would be no necessity for maintaining such power in the Harsimus Cove Yard operation.

The employes engaged in operating floating equipment at the float bridges did not perform any other service during the test period.

The question has been raised as to whether storage charges, demurrage, reconsignment, switching revenues, etc., are collected at the terminal under consideration and as to whether credit has been allowed in the cost study for such returns. No allowance has been made for the revenue received, since we are studying costs only and not the returns to carriers. Until a car has been received in the yard, it is not known whether it will become subject to any of the

charges enumerated. It is handled into the yard the same as any other car, as likewise on its outbound movement no [fol. 1825] unusual service is rendered.

Any revenue received because of terminal service or arising from action or lack of action on the part of the consignee, being classed as operating revenue, is not to be used as an offsetting factor against operating cost any more than the proportion of the line haul rate applicable to the movement after reaching the yard limits. This study is essentially a cost study. If it were an endeavor to ascertain the net return to the company, then consideration would have to be given to the revenue received.

In the calculation of the charges to Account No. 382, Fuel for Yard Locomotives, the entire expense of the New York Division for the year 1930 was used as per Exhibit No. 230. Necessarily, therefore, the fluctuation in the average cost per ton for fuel during the year 1930, which varied from a minimum of $1.74 to a maximum of $1.84 was reflected in the expenses used in the cost study. The results, therefore, represent an average condition. To have secured the fuel consumption during the test period would have necessitated the riding of locomotives by special duty men, an expense which we did not feel justified in assuming and even if ascertained would have represented a seasonal performance, an objectionable situation since the operations at Harsimus Cove Yard are subject to the extremes of weather conditions with corresponding effect on fuel consumption.

[fol. 1826] In relation to that portion of Exhibit No. 230, covering expense of handling perishable freight at Piers 27, 28 and 29, page 14, we wish to state that Pier 29 is occasionally used for overflow of merchandise from Desbrosses Street freight station. This was not done, however, during the period of the cost study, the month of April, 1931. Occasionally the facilities at Desbrosses Street freight station are insufficient to handle all the merchandise freight, in which case a small portion of Pier 29 is used. The cost of handling this freight in no way enters into the expense of the operation of Piers 27, 28 and 29. Furthermore, just as it is occasionally necessary to use Pier 29 for overflow or merchandise freight, so also Desbrosses Street freight station is sometimes used for the handling of overflow of perishable freight.

The New York and Porto Rico Steamship Company makes use of Pier 27 under a contract providing for charge covering wharfage and labor handling freight unloaded from the steamships of this company. All of the revenues received and all the expenses incurred have been credited and debited in the cost study, shown on page 14 of Exhibit No. 230, net figure of $66,674.56, for which an exhibit is now presented to show the breakdown of this amount.

Mr. Eshelman: We will ask that that be received as Exhibit 328.

[fol. 1827] (Said document, so offered and identified, was thereupon received in evidence, marked Defendant's Exhibit No. 328, Witness Heywood.)

By Mr. Gwathmey:

The money that we received from the New York & Porto Rico Steamship Company has been credited in this item of $66,000. The item of $66,674 that I am talking about is item No. 2 on page 14, labor at station paid contractors, etc. It was taken into consideration as shown in the exhibit.

By Mr. Eshelman:

There are no commercial telegraph facilities located on Piers 27, 28 and 29. The revenue received from restaurant and lunch room and pay telephone stations, amounting to $326.69, during the month of April, 1931, was not considered in the cost study through oversight. In any event, this is a small item which would have no effect on the average cost per car, in fact, certain other items which have been pointed out throughout this testimony and others which will be subsequently mentioned as items which would have been a just charge against operation, have not been so set up.

About 2,000 square feet, or approximately one-half of one percent of the floor space of Piers 27, 28 and 29, is occupied by the vice president in charge of perishables, and his organization of eight men. No arbitrary rental charge has [fol. 1828] been set up against this organization or as a credit toward the rental paid New York City for the piers since no charge has been made in the expenses for any portion of the wages of these men, notwithstanding the fact that their entire time is devoted to perishable traffic and that a

large share of that time is exclusively connected with the perishable traffic handled at Piers 27, 28 and 29.

While it is true that Desbrosses Street Freight Station is heated from the same facilities as are used for Piers 27, 28 and 29, the freight station is equipped with but three radiators which represent such a small proportion of the heating output that it was not felt any division of the expense was warranted, inasmuch as it would have no effect upon an average cost.

As to the $5,334 insurance charge, being the same as that which appeared in the cost study of 1926, this charge represents the premium covering items of risk which the New York City authorities require shall be protected by insurance. If it were not for this regulatory prescription, the railroad company would not carry insurance on certain of these risks, hence the premium quoted represents simply compliance with requirements. There was, therefore, no reason for changing the premium as in effect in 1926. In addition thereto, a further charge of $202.38 covering fire insurance is made but it was not included in the cost study through oversight, but could have properly been made a [fol. 1829] part thereof.

Considerable stress has been laid on the justification of dividing accounts 202 to 220, with exception of 208, and 210, on an engine hour basis. The complainants have intimated that a more equitable distribution could have been obtained by following what they claim to have been the recognized practice of the Interstate Commerce Commission, viz., that M. W. & S. accounts are one-third affected by use and two thirds unaffected by use.

The formula used by me in the allocation of M. W. & S. expenses to Harsimus Cove Yard is the same as that which Mr. Neal of this company used in his similar study in his exhibit No. 79 introduced in I. C. C. Docket 16,939. I am not prepared to concede that an allocation of these expenses on the basis apparently accepted by complainants is sound in theory. The Commission's formula, to which Complainants' refer, and which was used in the guaranty period of settlement, related, as I understand it, primarily to a comparison of operations in different periods, while here we have the problem of apportioning the expense of a division into a particular yard. However, if we should assume that

complainants' theory is preferable, which I do not concede, the result would not have been substantially different.

However, in order that the effect of the application of the one third use and the two thirds unaffected by use theory [fol. 1830] in relation to the cost study covered by Exhibit No. 230 may be available, we have reworked the M. W. & S. accounts 202 to 220, inclusive, excepting 208 and 210, by taking one third of the actual charges and dividing the same on an engine hour basis, the remaining two thirds of the actual charges being broken down on a track mileage basis. We now submit an exhibit which makes a comparison between the method used in preparing Exhibit No. 230 and the discussed theory. It will be noted there is a difference of but $.02 per car.

Mr. Eshelman: We will ask that this be received and marked Exhibit 329.

(Said document so offered and identified was thereupon received in evidence, marked Exhibit No. 329, Witness Heywood.)

Witness: Mr. Lamb, in his testimony, took exception to the total M. W. & S. expenses as submitted in my exhibit 230, predicating his argument on the unit cost per track mile and filed Exhibit 319 to sustain his argument. This exhibit purports to show that the freight expenses for accounts 202, 212, 214, 216, 218 and 220 were $1,005 per mile. In my opinion, this exhibit means absolutely nothing as related to the specific yard or property because of the fact that this is an average for the entire Pennsylvania Railroad and, therefore, is necessarily the average of the high and [fol. 1831] low. Furthermore, Exhibit No. 329 I just filed is an additional answer to this contention, showing as it does that either of the measures of divisions give practically the same result. But to carry the matter to the other extreme, we have recalculated the average cost per car by eliminating the entire M. W. & S. accounts 202 to 220, inclusive, excepting 208 and 210, and find that the average cost per car is reduced $.13.

If $.02 per car reduction was applied, the total cost per loaded car as appearing on page 1 of Exhibit No. 230, would amount to $29.56. If the $.13 were eliminated from the average cost per car, then the total cost per loaded car as per page 1 of Exhibit No. 230, would amount to $29.35.

Mr. Lamb has made much of the contention that the charges to account 241, viz., $4,916.52, when placed upon a yearly basis, constitute 95 per cent of the entire cost of the transfer bridges 3, 4, 5, 6 and 7 and fixed machinery, as stated on page 6 of Exhibit No. 230.

In the first place, bridges 8 and 9 are not included on page 6 of the Exhibit as assessed by the State of New Jersey in the year 1930, while the maintenance charges for these bridges are included in account 241, as stated on page 3 of the exhibit.

Secondly, the assessed valuation is not the proper figure on which to base the percentage of maintenance. There [fol. 1832] has been invested in this property, viz., bridges 3 to 9, inclusive, $765,550.38, so that the maintenance charges of $4,916.52 equated to a yearly basis amount to but 15.41 per cent. It is apparent, therefore, that Mr. Lamb's stand is without a basis in fact. As set forth in the testimony so far presented, it is evident that Exhibit No. 230 has leaned toward conservatism. There has been an understatement of taxable acreage; expenses covering maintenance of certain piers, such as H, J, K and L, have not been included; in connection with repairs to Piers 27, 28 and 29, we have allowed a credit of $623,411.32 representing a refund which has not or may never be received from the city of New York under a 20-year plan covering the lease of the piers; other miscellaneous items which might properly have been included were not set up in the expenses. My further investigation included consultation with operating department men of our railroad for the obtaining of this particular data.

I also made a similar investigation with the aid of representatives of our department and representatives of the operating department with respect to my Pittsburgh study. I have prepared a statement in connection with that for introduction at this time and certain exhibits for introduction in connection therewith. That statement and those exhibits are true and correct, to the best of my knowledge and belief.

[fol. 1833] A recheck of Exhibit 231, covering the expense of handling perishable freight at Sixteenth Street and Produce Terminal, Pittsburgh, determines the fact that certain of the taxable land included in the valuation figure, appearing on pages 6 and 7, included certain sections not a

part of the terminal study; also failed to set up certain other land which is properly includible in the terminal territory.

We now submit revision of sheets 1, 2, 6, 7 and 8 of Exhibit 231, which makes one allowance for the discrepancies. It will be noted that such changes decrease the cost per car by $.49.

Mr. Eshelman: May we ask that these be marked 231-A?

(Said documents so offered were received in evidence, marked Defendants' Exhibit 231-A, Witness Heywood.)

Witness: A map exhibit is now submitted, covering the property described on the revised pages 6 and 7, outlined in yellow the taxable area. All of the land therein included is used in connection with transportation facilities. In fact, no land occupied by industries is considered in this cost study.

Mr. Eshelman: May I offer this map?

(Said map so offered and identified, was thereupon marked Defendants' Exhibit 330, Witness Heywood.)

Witness: The switching crews on all tricks are made up [fol. 1834] of one conductor and two brakemen. None of these crews are engaged in handling passenger equipment. They do, however, perform industrial work within the limits of the terminal studied, along with the handling of perishable freight. For the cars handled in connection with industrial work, the engine hours and the crew costs have been included in the study since the endeavor was to obtain average cost per car within the confines of the terminal study. No interchange is made with carriers within the limits of the 16th Street yard.

During the test period there were no intra-terminal switching services performed for which switching revenues were collected, which statement is also applicable to any inter-terminal movements.

The classes of power used in this yard, as enumerated on page 5 of Exhibit 231, may be used indiscriminately throughout the terminal studied, the only limitations being requirements that no larger than a "B" class of locomotive be used on the adjacent industrial sidings because of excessive curvature. As has been explained in connection with

the Harsimus Cove study, the "B" class of locomotive has six drivers with a tractive power of 36,144. The "H" class has eight drivers and those types used in portion of Pittsburgh terminal studied range in tractive power from 42,168 to 53,197 pounds, while the "C" class has eight (8) drivers with a tractive power of 76,154.

[fol. 1835] Referring to my map of the Pittsburgh area, Exhibit 330, the territory outlined by yellow in this map represents the land as shown in Exhibit 231 as taxable property connected with the movement in the Pittsburgh terminal of the perishable cars. The study was not confined to the produce yard. To that extent the designation which I use, "16th Street Yard" is possibly a misnomer. The territory embraced within my study is from the part marked in yellow, 11th Street Freight Station or Produce Yard, out to that marked at the extreme right on the may in yellow, known as Coleman Yard. The operations and studies cover that entire terminal area.

There is now presented an exhibit showing by days separation for the 13,529 cars handled.

Mr. Eshleman: We will offer that exhibit.

(The document so offered and identified was thereupon received in evidence, marked Defendants' Exhibit 331, Witness Heywood.)

Those that were loaded and those that were empty, further subdivided to indicate the cars handled in road trains as distinguished from those moving in runner service.

As has been explained in previous testimony when discussing the Harsimus Cove Yard operation, the average cars handled per engine hour, when based upon the statistics included in Exhibit 231, does not represent the total [fol. 1836] number of cars actually handled since the latter figure, as reproduced in the study, contains only the cars in and the cars out, while the internal handlings included in the engine hours have no reflection in the other factor considered in the unit; namely, cars handled, since in this case it would mean car movements which in itself has no direct bearing upon the average cost sought for in the study.

Question was raised at the hearing of November 18th as to whether reconsigned cars were considered in the 13,529 handled at Pittsburgh. There were 301 reconsigned cars

included. The reason why the charges arising from such reconsignment, as well as any other revenues accruing from similar items, such a- demurrage, were not included as credit against expenses, has been amply covered in our previous testimony concerning the Harsimus Cove operation.

As to the possibility of making an actual calculation for the fuel consumption during the test period, the same situation exists in Pittsburgh as in New York, in that it would have been necessary to have made special arrangements for the securing of the information which expense we did not feel was warranted. The cost per ton at Pittsburgh during the year 1930 varied from a minimum of $1.78 to a maximum of $1.93, and as explained in the instance of the New York study, the use of the year's figures provided for a proper weight as regards the different seasons of the year. [fol. 1837] Team track labor does no recoopering work at Pittsburgh, this service being performed by platform labor. The expenses incident to such work were not included in the study. As to the receipt of rentals for the use of portions of the Pittsburgh Produce Terminal building, no consideration has been given to such items for the reason that the taxes and repairs applicable to that portion of the building so occupied, have not been included in the cost elements.

The transportation portion of that building is assessed for taxes by the City of Pittsburgh. The first floor is used for transportation purposes. Allegheny County assesses the upper part of the building. They are taxed by separate municipal corporations. I have included only the City of Pittsburgh taxes.

We now submit exhibit for the Pittsburgh study which shows for Accounts 202 to 220, inclusive, excluding 208 and 210, the application of the theory in regard to one-third as affected by use and two-thirds unaffected by use.

Mr. Eshelman: We ask that that be received as Exhibit 332.

(The paper so offered and identified was thereupon received in evidence, marked Defendants' Exhibit 332, Witness Heywood.)

Witness: It will be noted that there is an increase of but $.00165 per car which in turn affects the revised cost per [fol. 1838] loaded car as summarized on page 1 of the re-

vised exhibit in no way whatever. By eliminating the total charges to Accounts 202 to 220, inclusive, except Accounts 208 and 210, in the same manner as was done in discussing the New York study, the average cost per car is decreased $.21, making the revised cost per loaded car on page 1 of the revised exhibit 15.84.

There are icing facilities in Harsimus Cove within the area outlined on my map in yellow. The area occupied by those facilities is approximately 1,970 square feet, pretty close to 5/100 of an acre, I would say, roughly.

I have not omitted from the taxable area which I might included any other portions besides those I mentioned this morning. I did not eliminate the portion applicable to the ice plant or facilities. I might have appropriately eliminated that. I might have also appropriately included as an offset a small area running between 5/10 and 9/10 of an acre adjacent to Morgan Street. Therefore the non-exclusion of the ice house area does not affect my study from a taxable standpoint because the other area would offset it. We receive $1,500 per annum rental for that area. If that were broken down to the period covered by the study and applied to the number of cars involved it would only be about $62.50 for the test period, divided by 24,962 cars, as I recall the figure. The amount of switching costs which my [fol. 1839] study embraces includes switching to and from that ice house.

ANTHONY BONN was recalled and further testified as follows:

Examined by Mr. Eshelman:

The eastern terminus of the Baltimore Division is Park Junction which is about three miles east of our Chestnut Street passenger station in Philadelphia. We then go west through Baltimore to Washington to a point called Weaverton, which is practically our Brunswick terminal which is the western end of the Baltimore Division. We pick up the line at a point called Relay and go around by way of what we call the old main line which was our original main line from Baltimore and meet the line running from Washington at a point called Point of Rocks. We have a branch from Weaverton up to Hagerstown. Then we jump over

from Weaverton to Harpers Ferry and take in what is known as our Shenandoah Division, which is what we call the Valley territory running from Harpers Ferry to Strasburg Junction, skipping the line between Strasburg and Harrisonburg, and going down from Harrisonburg to Lexington and there is just a red line sketch map that will show you the territory.

[fol. 1840] Coming to the second question, on cross-examination I endeavored to draw upon my memory for the mileage of tracks in the Philadelphia terminal and stated something like twelve miles. The actual mileage is 57.68 which, of course, was easily demonstrated when Mr. Lamb divided 12 and got $6,000 per mile.

Concerning the third and fourth questions asked by the complainants, I am agreeable to furnishing that data as soon as it can be compiled.

Coming to question number five, I have prepared a map which shows the taxable area taken into account in my cost study. I have taken 14 valuation maps of the Philadelphia terminal and have indicated the taxable area and the various tracks and buildings referred to in this question and also am prepared to indicate certain parcels of land and structures which are rented and which, through error, were included in the total valuation and in the total taxes. The yard facilities, including land, of the Philadelphia terminal, have an assessed valuation of $2,004,000. The Real Estate Department has developed that the assessed valuation of certain properties included in that $2,004,000 amounted to $125,204. If that were eliminated from my study, the reduction per car, including the taxes on this valuation I have mentioned, $125,204, which amounts to $3,474.39, would eliminate approximately 6 percent of the amount shown on [fol. 1841] page 2, $6,663.30. In total that would be about $400 or, roughly, 4 cents per loaded car. In other words, it would reduce the $3.86 by 4 cents.

By Mr. Gwathmey:

This item on page 2 covers taxes and interest. This is the way I worked it out, Mr. Gwathmey. I got 6 per cent of the same figure. I am just taking 6 per cent of that total. I am reducing my assessed valuation 6 per cent and I am reducing my valuation 6 per cent. The interest charges are included in the $6,000.

By Mr. Eshelman:

Coming to the next question, No. 6, I have here in the rough the information that I could incorporate into the record now or give a statement later. The valuation maps show everything. We have shown in red the various tracks running into these industries.

The following is the data asked for in Question No. 6:

Maintenance of Way Expense—Baltimore Division

Years 1928, 1929, 1930

Year	Account 202 roadway maintenance	212 ties	214 rail	216 other track material
1928	$37,293.93	$108,243.54	$44,612.53	$61,077.56
1929	49,156.91	91,079.69	16,379.40	70,554.56
1930	97,865.85	70,770.34	16,359.79	48,010.05
Total	$184,316.69	$270,093.57	$77,351.72	$179,642.17

[fol. 1842]

	218 Ballast	220 T. L. and S.
1928	$2,629.30	$158,424.86
1929	8,177.83	168,683.49
1930	4,110.66	146,618.18
Total	$14,917.79	$473,726.53

I will furnish later the data asked for in Questions 7 and 8. In order to answer Question No. 9 it would take not less than two weeks because it would mean an analysis of the entire terminal operation for the test period. In order that I might supply some additional check of the figures which I arrived at in my study I went to the Philadelphia terminal with Mr. Ward who testified in this case as the operating witness, and spent two days there and went over the movements that would be made from the initial yard through the Transfer to the Produce Terminal of the loaded refrigerator car, the switching at the Produce Terminal, the return of the empties from the Produce Terminal back to the initial yard, classifying the empties into road trains. I have prepared an exhibit which sets forth the yard service operation from another angle than that shown in Exhibit 229 and, in my judgment, perhaps will give the southern carriers, as well as the Commission, a better picture of this operation than was contained in the expense figure of $3.86 which represented an average expense of [fol. 1843] handled cars in the entire Philadelphia Terminal.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 333, Witness Bonn.)

I will say that we made a study of certain days in March, 1931, namely, March 25, 26 and 27, 1931, that we felt would be representative of the typical movement of perishable freight in a normal period. This selected period was made after consulting the produce terminal agent and Mr. Ward and it has developed a really representative operation because we get not only perishables from the west but we get a representative number of cars through Potomac Yard from the South.

The various steps we took are indicated by letters "a" to "g", and they take in the breakup of the train, the transfer of the cars from East Side to Snyder Avenue Yard, the switching of the loaded cars to the platform or hold track, the return of the empties from the platform to Snyder Avenue Yard, transfer of the empty into the initial Yard at East Side, the makeup of the empty train and the helping of that empty train out of the East Side Yard, making a total round trip movement of 13.89 minutes per car, and placing that operation up against the engine hour costs ranging from $10 to $13, you get a range of cost of from $2.32 to $3.01. This operation represents practically a 100 percent movement taking no account of the delays to the [fol. 1844] yard engine in the produce terminal, any additional switching at that point or at East Yard, and, in my judgment, we are giving the Commission and the southern carriers a real conservative picture of the handling of perishable freight from the East Side to the terminal and return of the empties, including the citrus fruit from the south, and I believe the acceptance of this exhibit will overcome a great many of the doubts in the mind of the southern carriers as to the previous exhibit as relating to yard service in which we have gotten a cost of $3.86.

In that $3.86 there was an inclusion of approximately 4 cents per loaded car which should be eliminated by reason of taxes which would make it $3.82. I have called attention to the different methods of handling maintenance by which I can eliminate approximately another 10 cents if you use yard track miles instead of yard engine hours. If I should assume the latter method as complainants seem to intimate would be preferable, I would arrive at a figure of approximately $3.72.

If I assume an engine hour cost of $12 per hour, the resultant cost per car for this service would be $2.78, not making any allowance for delays and additional switching, and so forth, to which we naturally would be entitled to a percentage over and above the $2.78 which I am not prepared to give because it would require a detailed study of the opera-
[fol. 1845] tions which we could not get at this time because we are not handling enough business at the terminal of perishable freight to justify going into that. The reason why I show different engine hour costs on page 2 of my exhibit No. 333 is that I simply took a range between $10 and $13, using, as you will notice, the $10.63 in the Southeastern Refrigeration case and the $12.29 in that same case, being the two figures, one of which the Commission used ($10.63) and the carriers by their development got $12.29. All those engine hour costs relate to switching to icing plant. I believe $12 would not be overstating the engine hour cost in the Philadelphia terminal.

I will read into the record the information asked for in Question No. 10:

Class		Tractive effort pounds	Drivers	
Motor CG		36,000	2	(Motor pier 40n Philadelphia Terminal)
Industrial Engine	(C-13	23,500	2	
	(C-16-A	27,600	2	
General Yd. 4	(D-30	38,400	3	
	(L-1-A	54,800	4	
Dray or Transfer Service	(Q-1-AA	54,600	4	
	(Q-1-B	54,600	4	
	(Q-1-C	54,600	4	
	(Q-4	63,200	4	
	(Q-4-B	63,200	4	

[fol. 1846] Two drivers mean two drivers on each side of the locomotive, as I understand.

Coming to Question No. 11, I have one photostatic copy of the tax bills.

As to Question No. 12 I can furnish the information. I do not think it will take any great length of time.

Coming to Question No. 13 concerning unloading, trucking, stacking and recoopering, we can break down the separation into foreman, checker, etc., as to the labor, but the classification of the labor between unloading, trucking,

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stacking and recoopering can not be broken down because we operate there on a per car basis, a piece-work basis, and pay the men accordingly. The same labor will perform one as the other.

Concerning Question No. 14, there are no credits to be taken from items 12 or 13. There is a rental of a portion of the produce terminal for office purposes to the Philadelphia Auction Company. We get a rental of $3,600 for that space. That has been eliminated in its former valuation and tax report that I was talking about. When I make the 4 cents reduction per loaded car that eliminates this particular feature. I might say we have an offsetting loss in the handling of our restaurant business of over $3,000 which eats up all the rental we get from the Philadelphia Auction [fol. 1847] Company so really the amount of credit is nil.

Concerning Question No. 15, we handle nothing but perishable freight at the terminal. We have no other commodities handled at the terminal so that question answers itself except we can show you the amount of perishable freight we handle in that period. I presume you do not mean April 30, 1931, which is the test period of the Pennsylvania Railroad and not the Baltimore & Ohio.

Concerning Question No. 16, we have in our cost study absolutely eliminated the Quaker City Cold Storage Plant. I made somewhat of a misstatement the other day when I thought that there was some of the shuttle service from the floor of the Quaker City Storage Plant that we retained for our use but I find that there is no portion of that expense in this study. Therefore, the Quaker City Cold Storage Plant is an auxiliary service that is not embraced in Exhibit No. 229.

By Mr. Gwathmey:

The warehouse that is used by the Quaker City Cold Storage Company is considered a part of the Philadelphia Produce Terminal. In the 10,234 cars on page 8 we, through error, included 437 cars that went to the storage plant. Therefore the true divisor that we should have used was 9,797.

[fol. 1848] By Mr. Eshelman:

That raises the expense from $17.32 to $18.10. That correction would increase the cost.

In developing this station service we used certain expenses, Agent's clerks and attendants, foreman, checkers, platform and recooperage labor and team track labor, repairs to the terminal, insurance and fire alarm system, and in going into this cost more thoroughly I find that we have an additional expense at the terminal that we have not given in this exhibit. We maintain police protection, consisting of one train rider, two or three patrolmen, and the total expense in this period for that item, alone, exceeds $11,000.

We have heat and water and light and other incidental expenses which were not included, and if you would add those amounts to this station service study you would increase it by approximately 2½ dollars, which means that in giving this exhibit to the Commission, the $21.18, we have not overstated our expense at this time.

Concerning Witness Lamb's Exhibit 320 if I should eliminate all the maintenance of way and structures expenses, the amount of the reduction per car would be approximately 30 to 32 cents or reduce it from $3.86 to $3.54 and the four cents off for taxes would reduce it to $3.50. If I had included these other items which would roughly amount [fol. 1849] to $2.50 we would raise the $21.18 to $23.30 approximately.

It is my opinion that we have given here an amount that could be increased if you wanted to take the investment in the property, the true investment, not the valuation for taxation purposes, which one can readily see is much below par. Therefore, I do not believe that in using a figure of $21.18 or $23.30 we have overstated our expense at this time in connection with the handling of perishable freight in Philadelphia.

I want to make a statement in correction of Mr. Lamb's Exhibit 320. Mr. Lamb made an honest effort to put in that exhibit the information he had at hand. In Exhibit 320 he used the yard, roadway and track maintenance expense, Accounts 202, 212, 214, 216, 218 and 220 for the year 1930, in which he showed an expense of $1,585,163.78, and divided that expense by the mileage which he obtained from our annual report of 2,870.60 miles, and obtained an expense per mile of $552.21. That is for yard tracks, for yard accounts, for the freight portion only.

The 2,870.60 miles, of course, includes our passing sidings and station sidings and certain other sidings that would

not enter into the expense of $1,585,163178. When I returned to the office I circularized the entire Baltimore & Ohio System to find out just what mileage was represented by the expense stated above and instead of 2,870.60 it is [fol. 1850] 1,700.95 and dividing the mileage into the expense you obtain $932 as the expense per mile of yard track for the Baltimore & Ohio System for 1930.

Using the same mileage and the three years 1928, 1929 and 1930, in which the average expense was $1,609,654.97 you get an average expense per mile of $946. I have an exhibit to cover this study which I have made.

Mr. Eshelman: We ask that it be received as Exhibit 334.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 334, Witness Bonn.)

Witness: Using the same accounts for the Baltimore Division for the year 1930 we get a maintenance expense per mile of $1,037, and for the three years 1928, 1929 and 1930 of $1,081.

If we had used the 57.68 miles represented by the Philadelphia Terminal and divided that into the expense shown in Exhibit 229 as Mr. Lamb did we would have gotten $1,335 or an increased expense of 23½ per cent, which represents approximately the 10 cents I spoke of between the two methods.

[fol. 1851] E. A. Hodkinson was recalled and further testified as follows:

Examined by Mr. Beach:

At the last hearing Witness Doss introduced his Exhibits Nos. 316 and 317 in which, to certain important Official territory points, he compared the percents he proposes for the Eastern lines with percents arrived at by using as the Eastern lines' factors a mileage prorate of the 15,879 first class scale rates for the through distance.

The Commission has often indicated that the respective class rates prescribed for the various territories are not an index of comparative general rate levels or transportation conditions as between territories, and it therefore follows that even a first class rate prorate using the 15,879 scale

north and the K-2 scale south would be unfair to the Northern lines. Mr. Doss, however, for the purpose of finding some test to support his proposed percents, deflates the Northern lines' service still more. To show the extent to which he had to go in this respect I have had prepared an Exhibit, No. 335, which contrasts the cents per 100 pound factor which he awards to the Northern lines with Docket 15879 first class rate for the distance North and the K-2 first class rate for the distance south. This exhibit, in connection with Exhibit 316, shows that what Mr. Doss has done in Exhibit No. 316 is to devise a rate prorate [fol. 1852] which uses the full first class K-2 scale rate for the prorating factor south of Richmond while for the service north of Richmond he uses factors which average about 60 per cent of 15879 first class rates for the respective distance. Take New York, for example, he uses a factor of 53.1 cents. The Rule 26 rate for 346 miles is 52 cents. To state such a proposition is to show its absurdity.

(The statement referred to was received in evidence, marked Defendants' Exhibit 335, Witness Hodkinson).

Witness: In explanation of the percentages at the bottom of Exhibit 335, the third column shows the proportions to the Eastern lines as abstracted from Witness Doss' Exhibit 316. They total 482. The 15879 appendix E first class scales are also shown for the distances north. They total 805. The proportions to the Eastern Lines in Doss Exhibit 482 divided into 805 produce the result of 59.8 per cent. Likewise, 482 divided into 1,138, which is the total under the heading of 13494 K-2 first class rate, produces a result of 42.4 per cent.

The complaint in Docket 24069 brings into issue the reasonableness and propriety of all divisions on Citrus Fruit to points in Buffalo-Pittsburgh, Trunk Line and New England territories. The order of investigation in Docket 24160 includes all citrus fruit divisions to points throughout Central territory. In other words, so far as destination [fol. 1853] territory is concerned, the entire Official territory is involved, as practically every road within Official territory participates to a greater or less extent in the movement of Florida Citrus Fruit.

The tariffs publishing the citrus fruit rates includes all Class 1 carriers within Official Territory as participating

carriers. Rates apply to points on these lines throughout the territory. Practically all Southern lines participate to a greater or less extent in the movement of Florida citrus fruit from the South via the varying routes to the North.

The statistics presented by Mr. Lamb have dealt separately with 7 and 9 selected Trunk Line and New England carriers and 4 and 5 selected Southern Carriers, but when dealing with the Central Freight Association he found it necessary to use the figures for 18 Southern carriers and 8 C. F. A. Roads.

I might say in passing the 8 C. F. A. roads include some duplications which were also dealt with in the 7 and 9 selected Trunk Line carriers. That is true of the Baltimore & Ohio and the Pennsylvania.

Consolidation of the two sets of exhibits shows that even under the Southern Roads' presentation of the case, 18 Southern Roads and 15 Northern Roads are particularly interested in the transportation of citrus fruit traffic. We [fol. 1854] can not conceive any different basis for divisions as to Central Freight Association territory and Trunk Line-New England territories, if divisions are to be based upon so-called differences in rate levels, expenses and so forth, for the reason that several northern lines operate in both Trunk Line and C. F. A. territory, and no separation can be made of their figures for the two territories.

The divisions which will be fixed should therefore apply to all points to which rates are published and not only to points on selected lines.

Since rates are published to all destinations on all Class 1 carriers throughout Official territory, and since no one can say in advance that citrus fruits will not be moving to any given station, it seems to me not only proper, but imperative to use group statistics in weighing differences in transportation, and other conditions, in the different territories.

A glance at Exhibit No. 311 submitted by Witness Doss shows the network of lines within the South that actually handled citrus fruit in the 1928-1929 season, and indicates clearly the propriety of using the statistics as published by the Commission as covering the Southern Region.

In further support of my statement that practically all lines in both the Southern District and the Eastern Region

are vitally interested in this citrus fruit traffic, I call par-
[fol. 1855] ticular attention to Witness Doss' Exhibit No. 232, and to pages 36 to 42 thereof. This exhibit shows that during the test period covered by this traffic study 1,201 separate and distinct routes were utilized. However, the Southern operating, traffic and accounting witnesses have, in presenting their case, used statistics of a few selected lines.

As previously stated I can not too strongly emphasize the position of Eastern carriers that the divisional case at issue as to Citrus Fruit requires a determination that the percents shall be so much north and so much south of the breaking gateways. For the reasons I have given, the Official territory lines seriously question the propriety of using statistics of certain selected roads to portray relative conditions in the two territories. In fact in my opinion divisions on citrus fruit can not properly be made without at the same time considering divisions on other traffic, the rates on which are likewise related to the class rates.

Without accepting the statistics of the Southern lines dealing with selected roads as having any probative value, I shall undertake to briefly analyze the showing which they make and apply certain divisional tests, based on such showing.

Recent decisions of the Commission indicate that two
[fol. 1856] important factors in divisional cases involving rates between two groups, or sets of carriers, are:

A. Relative Cost of Service.
B. Relative General Rate Levels.

Witness Lamb's Exhibit No. 91 compares the Traffic Density and Operating Costs of five selected Southern roads and 7 and 9 selected Eastern roads respectively, for the calendar years 1928, 1929 and 1930. This is one of the exhibits wherein the witness equated the passenger miles to ton miles by using the so-called 3 to 1 ratio. Mr. Bassett developed the fallacies and deficiencies of the 3 to 1 ratio, and I do not propose to elaborate on the criticism which he made, and with which I fully agree.

To provide an appropriate background for the exhibits I will now introduce, I am going, without in any way conceding that Mr. Lamb's showing in this and other exhibits is entitled to any weight, to make certain comparisons in

which I have merely for purposes of comparison accorded Mr. Lamb's figures 100 per cent credit.

The most important point of Exhibit No. 91, I take it, is shown in Line 15, which purports to give the total cost for 1,000 equated traffic units for 5 Southern roads and 7 and 9 Eastern roads, respectively, for each of the three years, 1928 to 1930, inclusive. This total cost includes a 5¾ per cent return on investment. The exhibit shows that for the [fol. 1857] three year period covered, according to Mr. Lamb, it cost the 5 Southern lines $15.75 in 1928, $15.95 in 1929 and $17.18 in 1930, to handle 1,000 equated traffic units. During the same three years the exhibit shows the cost to the 9 eastern lines was $12.07 in 1928, $12.02 in 1929, and $12.75 in 1930. Otherwise stated, assuming only for the purpose of comparison I am later to present, the entire correctness of Mr. Lamb's showing the cost of the eastern lines in 1928 was 76½ per cent of that of the southern lines, in 1929, 75 per cent and in 1930, 75.5 per cent.

Mr. Lamb's Exhibit No. 92 is prepared on the same theory exactly as Exhibit No. 91, except that the Southern Railway is excluded, because, according to the witness, the Southern Railway handled a very small proportion of the traffic involved in this proceeding. At page 427, however, Witness Lamb showed that the Southern Railway handled approximately 2400 cars of citrus fruit destined to Trunk Line and New England territories in 1929. This is considerably more than was handled in 1928-1929 by the following lines in Trunk Line and New England territories, as shown by exhibits of Witness Doss: New York Central Railroad; Delaware & Hudson Railway; Central Railroad of New Jersey; Reading Company; and Boston & Maine.

It is, therefore, plain that there is less reason for eliminating the Southern Railway to get at the true picture than [fol. 1858] there is for eliminating the lines referred to in Trunk Line and New England territories.

In his Exhibit No. 294, and still dealing with Trunk Line and New England territories, Witness Lamb compared statistics of 4 southern roads with 7 Eastern roads on three different bases, viz:

1. Freight expenses per ton mile.
2. The equated traffic unit basis cost, using the 3-1 ratio, and

3. The equated traffic unit basis cost, using actual ratio of passenger-mile earnings to ton-mile earnings, for equation purposes.

On the ton-mile expense basis this exhibit shows that the cost of handling traffic for the 7 eastern roads ranged from 81 percent to 89 percent of that for the 4 southern roads, the straight average for the 5-year period being 84 per cent.

On the trffic units basis, using the 3-1 ratio, Witness Lamb indicates it cost the 7 eastern roads from 78 per cent to 88 per cent of what it cost the 4 southern roads during the 5 years, 1926-1931, inclusive, the straight average being about 80 per cent.

On the actual ratio of passenger earnings to ton-mile earnings, basis the exhibit shows that to handle 1000 traffic units it cost the 7 eastern roads from 76 per cent to 86 per cent of what is cost the 4 southern roads, the straight average for [fol. 1859] the 5 years being about 80 per cent.

So far I have referred solely to exhibits which deal with Trunk Line-New England territories and which relate to the question of the relative costs of handling traffic by the southern roads participating in the citrus fruit traffic and the same for eastern roads so participating. I have also pointed out that these costs include a return of 5¾ percent on investment in each ease.

Coming now to the question of the relative rate levels for the two sets of carriers. The Commission has indicated that average revenues per ton-mile, to some extent at least, furnish a means of comparing the general level of freight rates in two territories. I pointed out in my previous testimony that one reason the ton mile earnings of the Eastern Region, were somewhat lower than the average ton mile earnings of the Southern Region, was due to the preponderance of heavy-loading low-grade commodities originating and moving within Official territory. If the figures for some of the heavy coal carying roads were eliminated from the showing for the Eastern Region, the average ton mile revenue for that region would exceed that of the Southern District.

As I previously stated, the exhibits introduced by Witness [fol. 1860] Lamb, his numbers 85 and 88, 295 and 298, show that 18 southern roads and 15 eastern roads are covered thereby. That means on traffic to both Trunk Line and C. F.

A. territories or looking at Official Classification territory as a whole, there are 15 Official Classification territory lines involved and 18 southern lines involved, as shown by Witness Lamb's exhibits. His figures include the figures for 18 southern roads and 15 eastern roads.

Revenues and expenses per ton mile are affected by: 1st, The average haul; 2nd, The average load; and 3rd, the Composition of the Traffic.

I have just referred to the preponderance of the low-grade heavy-loading traffic in the Eastern Region.

In my Exhibit No. 336, which I now present in evidence, I have merely as a matter of convenience consolidated the figures for the 15 eastern and 18 southern roads used by Witness Lamb in his Exhibits 85, 88, 295 and 298. This exhibit shows that the average haul for the two sets of carriers is substantially the same. I have made a similar consolidation for the two sets of carriers in my Exhibit No. 337, which shows average revenues per ton mile, average expense per ton mile and average load.

(The statements referred to were received in evidence marked Defendants' Exhibits Nos. 336 and 337, respectively, Witness Hodkinson.)

[fol. 1861] The average revenue per ton mile and the average expense per ton mile is shown as being higher for the 18 southern roads in each of the three years 1928, 1929 and 1930 covered by the statement, but the average load was higher for the 15 eastern roads in each of the 3 years.

Reduced to percentages the average revenue for the 15 eastern roads was: 89.58 per cent in 1928; 88.56 per cent in 1929; and 87.27 per cent in 1930, of the Southern roads average ton mile revenue.

The percentages which the expense per ton mile, for the 15 eastern roads were of the 18 southern roads average expenses per ton mile was: 91.14 per cent in 1928; 89.74 per cent in 1929; and 87.29 per cent in 1930.

The average load for the 15 eastern carriers exceeds that of the 18 southern carriers by 17.19 per cent in 1928; 19.28 per cent in 1929; and 18.08 per cent in 1930.

The above figures were taken from exhibits presented by Witness Lamb, and are here presented without in any way conceding the propriety of said exhibits for selected roads.

Dealing now with the separate exhibits introduced by

Witness Lamb, those exhibits show for the three years 1928 to 1930, inclusive, that the average earnings per ton mile of the 9 eastern roads varied very little. The range was from 10.66 to 10.90 mills per ton mile, or a variation of .24 or about ¼ of a mill. During the same period the average [fol. 1862] ton mile earnings of the 5 southern roads ranged from 13.77 to 13.97 mills, or a variation of ⅕ of a mill. Taking the year 1930, for example, the relative figures are 10.60 mills for the eastern group of lines and 13.77 mills for the 5 southern roads. These average per-ton-mile revenue figures would indicate that the general rate level of the 9 eastern roads concerned, as compared with the 5 southern roads and without taking into consideration average haul or average load, was about 77 per cent of that of the 5 southern roads. The average haul shown is not substantially different for the two territories, but when it comes to average load it will be seen that the average load of the 9 eastern roads is approximately 25 per cent higher than that of the 5 southern roads. This is accounted for by the fact, as shown by other exhibits and as previously stated, the Northern Lines handle a much greater proportion of coal, ore and other low-grade tonnage than do the Southern lines, and this of course has a tendency to depress the average ton-mile earnings of the 9 eastern roads.

With my previous testimony in mind I want now to apply certain divisional tests to the citrus fruit rates to Trunk Line and New England territories. In the Commission's report in Division of Freight Rates, 148 I. C. C. 457, at page 478, the Commission said:

"In our opinion the divisions in issue are not just, rea- [fol. 1863] sonable and equitable. Many of them are unjust to complainants, and some of them are unjust to defendants. To cure their defects, they must be readjusted upon a consistent basis which will as nearly as practicable reflect, in the light of all the facts of record, the differing conditions in the two territories. Such a readjustment will, we think, be accomplished if the joint rates are divided, south and north of the gateways, in proportion to assumed rates for the two hauls, the assumed rate for the distance covered by the haul south of the gateway to be the first-class rate for that distance under the present Southwestern scale, and the assumed rate for the distance covered by the haul north of the gateway to be 80 per cent of

the first-class rate for that distance under the same scale in the case of traffic to or from points in Illinois and Wisconsin and 87 per cent in the case of traffic to or from other points in the Western Trunk Line group. Where differentials are added in either territory in making the rates, such differentials should be deducted before prorating and added to the divisions of the lines in the region in which they apply."

In other words, as I analyze the decision, the Commission, while it used a common yardstick, namely, the scale of first-class rates prescribed in the Consolidated Southwestern case to arrive at factors for prorating purposes, it reduced [fol. 1864] that scale for the group of carriers which had lower costs and a lower average general level of rates. As the Commission subsequently said in its supplemental report, 156 I. C. C. 90, the formula used—

"* * * was merely a method of adjusting the divisions to what we believed, upon the evidence, to be a fair approximation of the difference in conditions in the two territories. The Southwestern scale furnished a convenient means of doing this, using 100 per cent of the scale in the Southwest and 80 and 87.5 per cent in the two parts of Western Trunk Line territory. Another scale with a similar progression, such as the Southeastern, could have been used with substantially the same results."

The Commission then referred to the propriety of using the Southwestern scale since it forms the base of the class rates and many of the commodity rates, not only within the Southwest but between that territory and Western Trunk Line territory.

In the series of exhibits which I now desire to present I have followed precisely the same theory as did the Commission in the proceedings I have just referred to. I have undertaken to test existing divisions by a rate prorate, using the full K-2 scale, first class rates, for the haul south of the gateway, and for the haul north of the gateway I have applied various percentages of that same scale rang- [fol. 1865] ing from 95 per cent of that scale down to 70 per cent. Since the citrus fruit rates here involved are 40 per cent of the K-2 scale, of first class rates, the propriety of its use in the manner suggested is supported by the Commission's decision just referred to. The exhibits

are all prepared on the same theory, except that a different percentage is used north of the gateway in each case. No admission is made as to propriety of using these per cent of 1st class; in fact, based on testimony that has been presented in this case 100 per cent factors north are entirely within reason.

My first exhibit in this series, No. 338, is based upon the rate prorate to which I have just referred, using as factors 100 percent of the K-2 scale 1st class rate South, and 70 percent of the 1st class K-2 scale North, both factors being predicated upon the rate making distances north and south of the gateway.

(The statement referred to was received in evidence marked Defendants' Exhibit No. 338, Witness Hodkinson.)

The exhibits previously filed and Witness Doss' testimony clearly establish Lake Wales as the representative point to be used as reflecting the average weighted haul.

I shall, therefore, confine my remarks to the results which would obtain from Lake Wales, on sheet 6 of the exhibit, but before discussing those results, I wish to point out that [fol. 1866] the use of 70 per cent of the 1st class K-2 scale rate as the northern factor and 100 per cent of the K-2 scale 1st class rate as the southern factor in effect reflects relative conditions in the south as being 42.8 per cent more arduous than in Official territory. In my previous exhibits I compared the results which would follow from the application of various divisional formulae, with the proportion which would accrue to the northern lines under the percentage proposed by Witness Doss for application to this traffic. In this series of exhibits the comparison will be with the specifics under attack in this proceeding.

The exhibits are self-explanatory, so far as the fundamental data are concerned, and in each case the L-2 arbitrary has been deducted before prorating.

The significant figures are those shown in Lines 11 and 12 of the exhibit. It will be noted that even allowing the Southern lines an inflation of practically 43 per cent in its divisional factor, which is far in excess of any differences in conditions shown by Witness Lamb in any of his exhibits, the proportions which would accrue to the northern lines would be in excess of the specifics under attack, to the points to which the greater portion of this traffic moves.

At Baltimore, shown on page 6, the increase would be [fol. 1867] 5½ cents, at Buffalo 1½ cent, at Harrisburg ½ cent, at New York 8½ cents, Philadelphia 8 cents and at Washington 2½ cents per 100 pounds.

The decreases would be 2 cents at Albany, 6½ cents at Altoona, 12 cents at Boston (New York, New Haven & Hartford Railroad delivery), and 1½ cent B. & M. and B. & A. deliveries, 3½ cents at Pittsburgh, 7 cents at Scranton, 2½ cents at Springfield, New Haven, delivery and 3½ cents B. & M. and B. & A. deliveries and 2 cents per 100 pounds at Syracuse.

My next exhibit, No. 339 is similar to the preceding exhibit, except that I have used 75 per cent of the 1st class K-2 scale as the northern factor, which gives the southern lines an inflation of 33⅓ per cent to its divisional factor. Here again the proportions accruing to the northern roads to the points at which the larger portion of the traffic is delivered would be substantially in excess of the specifics under attack. The results as to the other points would show a reduction in the decreases at the various points I named when discussing my previous exhibit.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 339, Witness Hodkinson.)

My next exhibit, No. 340 is based upon the use of 80 per cent of the 1st class K-2 scale as the northern factor, which means an inflation of 25 per cent to the southern fac- [fol. 1868] tor. Again taking Lake Wales as representative, substantial increase would accrue to the northern roads over the specifics under attack except to Altoona, Pittsburgh, Scranton and Springfield.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 340, Witness Hodkinson.)

My next exhibit, No. 341, is based upon the use of 85 per cent of the 1st class rate K-2 scale for northern factor.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 341, Witness Hodkinson.)

My next exhibit, No. 342 is based upon the use of 90 per cent of the K-2 scale 1st class rate as the northern factor.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 342, Witness Hodkinson.)

My next exhibit, No. 343, is based upon the use of 95 per cent of the K-2 scale 1st class rate as the northern factor.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 343, Witness Hodkinson.)

So far my tests have been based on the K-2 scale.

Looking at the picture from another angle, I have prepared exhibits in which I used the 15879 scale as the yardstick. In those exhibits I have used 100 per cent of the [fol. 1869] 1st class Docket 15879 scale as the northern factor, and 125 per cent and 140 per cent of the 1st class Docket 15879 scale as the southern factors. In both cases the rates used were those applicable to the rate making distances north and south, respectively. The L-2 arbitraries were also deducted before prorating.

My exhibit 344 is based upon allowing the southern lines 125 per cent of 1st class Docket 15879.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 344, Witness Hodkinson.)

Again using Lake Wales for comparative purposes, still shown on page 6, it will be noted that the use of this formula would result in substantial increases to the northern lines at the points at which most of this traffic is delivered; for example at New York the increase would be 10½ cents per 100 pounds, while except at Altoona and Scranton the decreases would be minor.

My Exhibit No. 345 is similar to Exhibit 344 except that in the case of Exhibit 345 I have used as the factor south 140 per cent of the docket 15879 1st class rate and 100 per cent as the northern factor.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 345, Witness Hodkinson.)

That shows from Lake Wales to New York an increase of 8½ cents per hundred pounds; at Philadelphia an in-[fol. 1870] crease of 8 cents per hundred pounds; at Baltimore an increase of 5½ cents per hundred pounds; and at Buffalo an increase of 1½ cents per hundred pounds.

As shown in my Exhibit No. 132, the weighted average haul south based on Witness Doss' Exhibit 11 is 853.6 miles; north it is 372.7 miles.

In my next exhibit, No. 346, I have compared the revenues retained by the northern lines with the revenues they would have received based on a rate prorate using the K-2 scale 1st class rate as the yardstick for the weighted average distance north and south, respectively, allowing the southern lines 100 per cent of that 1st class K-2 scale rate as its factor, and the Eastern lines 70 per cent and 65 per cent of the K-2 scale 1st class rates as their factor.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 346, Witness Hodkinson.)

I would like to call attention at this point to item 6. Item 6 reads: "Per cent north, using lines 7 and 5 as factors." That should be corrected to read: "Using lines 3 and 5 as factors."

It will be noted that under the 70 per cent basis the eastern lines would have received $383,355.00 more than they actually retained.

Under the 65 per cent basis which allows the southern [fol. 1871] lines an inflation of 53.8 per cent to its divisional factor the eastern lines would have received $276,296.09 more revenue than they actually retained.

Before leaving the matter of the comparisons made by Witness Lamb of the five southern roads vs. the nine eastern roads, I desire to present two exhibits dealing with traffic density.

My first, No. 347, compares the Revenue Ton Miles and Revenue Tons originated during the years 1911 and 1929 for the two sets of carriers. It will be noted that both as to Revenue Ton Miles and Revenue Tons originated the five southern roads enjoyed a much greater percentage increase during this period than did the nine eastern roads.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 347, Witness Hodkinson.)

The percentage increase to the nine eastern roads, revenue tons originated, is 7.77 percent.

The increase to the five southern lines was 69.77 percent.

The revenue ton miles for the nine eastern roads, there was a percentage increase in 1929 over 1911 of 43.94 percent, whereas, during the same period the percentage increase for the five southern roads was 109.60 percent.

In my next exhibit, No. 348, I have compared the tons one mile per mile of road for the nine eastern roads and the [fol. 1872] five southern roads for the years 1911 and 1929. Here again the southern roads enjoyed a much greater percentage increase than did the nine eastern roads.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 348, Witness Hodkinson.)

The percentage increase over 1911 of the nine eastern roads is shown in the statement at 42.47 percent, whereas for the five southern roads the increase was 94.95 percent.

Coming now to Central territory, Witness Lamb's Exhibits Nos. 300 and 301 compare traffic density and operating costs of 18 southern roads and 8 and 7 eastern roads participating in the handling of citrus fruit traffic to Central Freight Association territory. Those exhibits show that in the year 1928 it cost the 18 southern roads $13.20 for the handling of the thousand traffic units, and that the similar cost of the seven eastern roads was $10.15. In 1929 the cost of the 18 southern roads was $13.47 and to the seven eastern roads $10.07. Otherwise stated, the cost to the seven eastern roads is shown as being approximately 75 percent of that of the 18 southern roads.

With respect to average revenues per ton mile, exhibits introduced by Mr. Lamb show that for the years 1928, 1929 and 1930 the average ton mile revenue of eight eastern roads ranged from 9.12 to 9.18 mills, while during the same period the average per ton-mile earnings of the 18 southern roads [fol. 1873] ranged from 11.34 to 11.40 mills per ton mile. Taking 1930, for example, this would indicate that the average freight level of the eight selected eastern roads was about 80 percent of that of the 18 southern roads, but it does not take into account at all either composition of traffic or average haul. I have previously shown in my Exhibit No. 337 that the average load of the 15 eastern roads is higher than that of the 18 southern roads, which difference, of course, has a bearing on the average per-ton-mile figures. The average haul in the case of the 15 eastern roads in substantially the same as that of the 18 southern roads.

The series of exhibits which I now introduce make the same tests as to the citrus fruit rates to Central Freight Association territory as were made in connection with my

Exhibits Nos. 338 to 345, inclusive, for Trunk Line and New England territories.

In the first of this series of exhibits, No. 349, I have compared the present proportion north of Cincinnati with the proportions which would accrue to the northern lines, based on a rate prorate using as the northern factor 70 percent of the K-2 1st class rate for the distance north and 100 percent of the K-2 1st class rate for the distance south, as the southern factor. As I have previously stated this allows an inflation of about 43 per cent to the southern roads factor.

[fol. 1874] An examination of this exhibit shows that even after allowing the southern roads an excessive divisional factor, the proportions north would in practically every instance be in excess of the present proportions.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 349, Witness Hodkinson.)

In fact, the only instances in which the present proportions are in excess of those that would result from the application of this formula, are from a few Florida points to Huntington, West Virginia, and there the differences are slight.

Turning to page 9 of that exhibit, using Lake Wales and taking Chicago as a destination there would be an increase of 9 cents per hundred pounds in the northern factor. At Cleveland there would be an increase of 7 cents per hundred pounds in the northern factor. At Detroit there would be an increase of 7½ cents per hundred pounds in the northern factor. At Toledo there would be an increase of 5 cents per hundred pounds in the northern factor. At Youngstown there would be an increase of 8 cents.

From Lake Wales it will be noted that in every instance the use of the 70 per cent of the K-2 scale as the northern factor would result in increases to every point in C. F. A. territory covered by the exhibit.

The remainder of these exhibits are built along the same [fol. 1875] general line. I will identify them as we go along.

Exhibit 350 is similar to Exhibit 349 except that I have used 75 per cent of the 1st class K-2 scale as the northern factor.

Exhibit 351 uses 80 per cent of the K-2 scale as the northern factor.

Exhibit 352 uses 85 per cent of the K-2 scale as the northern factor.

Exhibit 353 uses 90 per cent of the K-2 scale as the northern factor.

Exhibit 354 uses 95 per cent of the K-2 scale as the northern factor.

(The statements referred to were received in evidence, marked Defendants' Exhibits Nos. 350 to 354, inclusive, Witness Hodkinson.)

Exhibit 355 is the same as similar exhibits which were prepared and presented covering the traffic moving to Trunk Line and New England territories except this covers Central territories and it is another case in which I have used the Docket 15879 scale as the yardstick.

In Exhibit 355 I have used 125 per cent of Docket 15879 scale as the southern factor and 100 per cent of the 1st Class 15879 scale as the northern factor.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 355, Witness Hodkinson.)

[fol. 1876] Taking Lake Wales as illustrative, it will be noted under this formula there would be an increase of 11 cents per hundred pounds at Chicago; 9 cents per hundred pounds at Cleveland; 10½ cents per hundred pounds at Detroit; 7 cents per hundred pounds at Toledo; and 10 cents per hundred pounds at Youngstown.

Exhibit 356 is similar to Exhibit 355 except that in this case I have used 140 per cent of Docket 15879 first class rate as the southern factor and 100 per cent of the first class scale rate as the northern factor.

Referring once again to Lake Wales, it will be noted that the use of this formula would result in an increase of 7 cents per hundred pounds at Akron; 9 cents per hundred pounds at Chicago; 7½ cents per hundred pounds at Detroit; 5 cents per hundred pounds at Toledo; and 8 cents per hundred pounds at Youngstown, Ohio.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 356, Witness Hodkinson.)

At the last one of the previous hearings we compared the divisions of specifics accruing to the northern lines in Trunk Line and New England territories with certain class

rates north of the gateways. To complete that picture and have the same information in the record for C. F. A., in Exhibit 357 I have compared the divisional proportions north of Cincinnati with the class rates, varying class rates, [fol. 1877] arising out of Docket 15879. The exhibit is self-explanatory. The columns are headed alphabetically from "A" to "I" and the explanation of those columns appears under the heading, "Explanation of Columns."

I do want to call particular attention to column "F", which represents our present specifics north of Cincinnati.

Compare column F with column E, which is 40 per cent of the first class Docket 15879 scale, and will be noted how much lower our present specifics north of Cincinnati are than even 40 per cent of the first class 15879 scale, whereas, in my previous testimony I pointed out the normal classification basis for oranges in Official Classification territory was third class.

Column H represents the proportion which our present specific is of 40 per cent of the Docket 15879 scale.

It will be noted that the highest percentage proportion we obtain of 40 per cent of the first class rate, Docket 15879 scale is 77.8 per cent, whereas the lowest proportion we obtain is 53.8 per cent.

(The statement referred to was received in evidence, marked Defendants' Exhibit No. 357, Witness Hodkinson.)

The Exhibits Nos. 335 to 357 were prepared by me or under my direction, and are true and correct to the best [fol. 1878] of my knowledge and belief.

An adjournment was taken until 9:30 A. M., December 22, 1931.

[fol. 1879] Washington, D. C., December 22, 1931.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

ANTHONY BONN was recalled and further testified on cross-examination as follows:

Examined by Mr. Gwathmey:

On yesterday I produced at your request a series of blueprint maps which are valuation maps relating to opera-

tions within the Philadelphia Terminial. I also produced a small blueprint which is referred to as the "Index for the Valuation Map." I am willing to file this small blueprint as an exhibit in the case.

(Said map so offered was received in evidence, marked Defendants' Exhibit 358, Witness Bonn.)

It is approximately 4.76 miles between the East Side yard and the Philadelphia Produce Terminal. It is approximately 8.43 miles between Park Junction and the Philadelphia Produce Terminal. Park Junction is the eastern terminus of the terminal. East Side is the initial yard in which the perishable freight is received either from Park Junction or from the west or east. Our line connects with the Philadelphia & Reading Railroad at Park Junction. We show about 2.6 miles back of Park Junction from an [fol. 1880] actual operating standpoint to a place called Belmont.

Q. It would appear from this map that switching over the lines shown hereon to and from the Produce Terminal is performed right through the heart of the business section of the City of Philadelphia; is that right?

A. That part from the east side is through the streets. Of course, we have our right of way, as you saw from the valuation map, from Park Junction over to East Side going through the tunnel and other points.

The Southern Philadelphia Belt Line we have eliminated there. That did not enter into this study. I understand there are located a large number of industries on this line between East Side yard and the Produce Terminal. In fact, right there around East Side we have quite a number of industries, as you see from the valuation map. I would say such industries are located along the entire length of that line. An operating man could tell you better than I can from an accounting standpoint, but from looking at the valuation map I would say they are all along there. There are also sidings leading to such industries. We have indicated them on the valuation map. I could not estimate how many industrial sidings there are between the East Side yard and the Philadelphia Produce Terminal; also adjacent to the East Side yard. I would say there are also some in the intermediate territory but I have not had the [fol. 1881] opportunity to examine into that feature. The

valuation map indicates that there are nine industries and one interchange in the area between the East Side yard and the Produce Terminal. From the East Side yard going toward the Produce Terminal it is double track as far as Rigner Street and 23rd. It is single track around the loop as far as Oregon Avenue and it is double track from there in to the terminal. I could not say whether cars are frequently placed for loading or unloading along the track in front of the plants of industries that do not have industrial sidings.

I would say from my latest observations that the service of switching to and from the Produce Terminal under the conditions which I have described is not an expensive switching service as compared with others. This last checking I did last week sort of convinces me that the operation around that terminal is not as expensive a proposition as at first indicated in my original testimony. I felt that this $3.86 was a most conservative figure, that it was really close to $5.00 and maybe more.

I went over the testimony given at a previous hearing in this case by Mr. Ward. I recall what he had to say about the character of that service. Mr. Ward and I sat down the other day for two days in East Side when we attempted to clock off the breaking of the trains, the transfer, the final switching at the terminal, bringing back the empties, [fol. 1882] putting them into the road train at East Side. There is a slack at the produce terminal. There must be a certain amount of engine-hour service that is caused by waiting for cars to arrive, switching them from and to the hold track and the entire operation around the terminal. The demands of this—you might call it an organized new service—is so important to the consignee that we are more or less on our toes all the time.

By Mr. Gwathmey:

In response to your request I have produced a photostatic copy of the tax bill of the City of Philadelphia for 1931 shown as the "Philadelphia Perishable Produce Terminal Company," the assessed valuation of which appears to be $1,300,000 and the total taxes thereon $36,075. That is the total valuation of the taxes as paid for the entire terminal, including the cold storage. By reference to sheet 7 of my Exhibit 229 it appears that of the $1,300,000 valua-

tion included in the tax bill, $932,225 is shown as "Perishable Produce Terminal, Including Land, but Excluding Cold Storage Warehouse."

The Tax Department of the Baltimore & Ohio Railroad was able to get from the Tax Department of the City a break-down of that $1,300,000. They gave me these figures: For the Perishable Produce Terminal, excluding the cold storage warehouse, land, $463,900; Auction sales build- [fol. 1883] ings, $191,250; Seven inspection platforms, $53,700; Private sales shed $67,500; One cold storage warehouse extension $160,875, making a total of $940,225, from which I have further deducted $8,000 for the land on which the storage warehouse is located, with the assistance of the Tax Department, from the area of that warehouse. I used the expression "clocking". I, of course, could not make an exact time study, but approximately from the experience of the men. Mr. Ward and I discussed it with three or four men that are living in that work.

By Mr. Gwathmey:

The auction sales building is a building in which the cars arrive at the platform, unload and are sold at auction. The seven inspection platforms are for display of cars where they can open the car, take out the samples and I presume they perhaps would sell at that same point, while I have not observed those operations. This private sales shed is not used. The storage warehouse extension is idle. We overbuilt for the time being.

I will undertake to supply later a statement showing the detail of the number of employees and the amount for all occupations comprised in the amount of $2,147.20 charged to Account 377. We have the number of days and the amount but we have not the employees.

The 19,000 cars, approximately, do include the loads [fol. 1884] received from the Philadelphia & Reading Railroad for the Produce Terminal or the Quaker City Storage Company and likewise the return of the empties. I am not familiar with the compensation the B. & O. receives from the Philadelphia & Reading for switching and delivering Philadelphia & Reading perishables at the Produce Terminal. I will have to supply that information.

No service is rendered, as I understand it, by the B. & O. agent, clerks and attendants shown on page 8 of my Ex-

hibit No. 229 for the Quaker City Storage operation. In order to answer that definitely I would have to analyze the movements of these clerks and agents.

I hurriedly ran over the testimony given by our representatives in Ex Parte 104 as to the services performed by those agents and clerks but my mind has not been impressed with any statements of those gentlemen.

The Baltimore & Ohio does not make any charge for recoopering at Philadelphia, as I understand it. I have checked that up. I had that checked by Mr. Molar. I have been told that there is no recovery from the line carriers. Mr. Molar is Inspector of Accounts of the Baltimore division. He is working with me on the detail and such things as I could not develop myself I have had him develop. At the previous hearing that question was doubtful in my mind and I have checked it up.

[fol. 1885] I have eliminated from the 10,432 cars handled during the period from August, 1930, to July, 1931, over the track between East Side yard and the perishable produce terminal, 437 cars which went to the Quaker City Cold Storage plant. Mr Molar who handled the detail for me has worked out the count of the cars taken from the monthly record. This is a joint operation between the Baltimore & Ohio and the Reading. Of course, the monthly bills have to show the details. I could not say whether that 437 cars is fairly representative of the average movement handled to the Quaker City Cold Storage plant per year without going back into the records of previous years. My understanding of that cold storage warehouse is it is not so much for citrus fruit as for butter and eggs. I will have to analyze that if you want a further analysis.

I recall testifying to this effect: "For our conductors, brakemen and yard enginemen we kept really a field study by having the men keep a slip of their actual services."

Q. Why did you decide to discard records of that sort in working up your cost study in favor of the estimates which you have used in your later study as shown in Exhibit 333?

A. Why, in this Exhibit 333 there was an attempt to give you a picture of the actual time required to handle [fol. 1886] this perishable freight from the initial yard, East Side, to the Produce Terminal and the return of the empties. I cannot tell you how much the Baltimore & Ohio Railroad receives from the Quaker City Cold Storage

Company, directly or indirectly, for the use of any of the B. & O. facilities at Philadelphia for the reason that I kept away from the cold storage warehouse and I made no attempt to find out any of the operations. I have not shown in my exhibits any credits for such payments, if there are any. As I say, I know nothing about it because I kept away from it. I attempted only to keep to the auction sales building, to the platform, team tracks, and so forth. If any such payments were made which are offsets to any of the expenses shown by the cost study, they should be credited, but I have no information as to what they are. I do not know what the Baltimore & Ohio receives from the Quaker City Cold Storage Company in reimbursement of services rendered by the Baltimore & Ohio, or employees. I do not know whether or not any such services are rendered. I kept away from the cold storage warehouse. I shut my eyes entirely to everything connected with the cold storage warehouse.

It is a fact that certain cars of perishables are reconsigned at Philadelphia. I do not have the number of such cars that were reconsigned during the test period but I can give it to you later. The agency force in the terminal handles matters relating to the reconsignment of such cars.

[fol. 1887] Redirect examination.

By Mr. Eshelman:

The reason I did not include as an offsetting credit in my cost study any amounts received by the Baltimore & Ohio from the cold storage company was that I wanted to get the actual expenses at the produce terminal relating to the 10,000 cars handled at the platform or the team tracks and exclusive of the cars that might have been handled at the cold storage. The Baltimore & Ohio are under obligations to assume the expense of the unloading at the cold storage warehouse done by the warehouse people themselves. So far as the station is concerned for the purpose of unloading it is a B. & O. station.

Q. If you were to include as an offsetting credit the amounts received by the Baltimore & Ohio, would it not have been necessary, in order to make the computation a

balanced one, to debit such amounts as would be paid on taxes of the cold storage property?

A. As I see it, it would seem to me that we should have been compelled to have made a full study, including the cold storage warehouse. I have not any expense wherein the Baltimore & Ohio performs a service for the cold storage company which it did not perform at the line haul rate. As I said before, the operations of the cold storage warehouse are kept out of this study. At first thought I would [fol. 1888] say it would — an error to iclude such amounts as the Baltimore & Ohio might receive from the cold storage warehouse such as apparently complainants' theory would suggest. My analysis of the terms of the lease of the warehouse might change that opinion. I do not know that at all. But as at present advised, it is my opinion it would not be proper to include as an offsetting credit such amounts as the Baltimore & Ohio might receive from the Terminal Warehouse Company in that study, unless we could develop that we had inc' a part of the expense some portion of the operations of the warehouse. If I had included some expense which represented a service performed by the Baltimore & Ohio for the cold storage warehouse which was not done at the line haul rate, then the proper computation would be, if I could find it, to take out the cost of that particular service performed, and not attempt to offset it by something which was not related to it directly.

Recross-examination.

By Mr. Gwathmey:

The same engines which switch cars in yard service to and from other portions of the produce terminal also switch cars to and from the cold storage warehouse. They come in on the same track.

[fol. 1889] By Mr. Lamb:

In arriving at the $932,325, I deducted $8,000 for land on which the storage warehouse was located. In arriving at the $8,000 valuation I had the Tax Department sit down with me and give me the area of the land on which the cold storage warehouse was located and from that calculation we arrived at the $8,000. I noticed that that is less than two percent of the total of the land.

J. L. Heywood was recalled and further testified on cross-examination as follows:

Examined by Mr. Gwathmey:

I have introduced into the record a map of the Harsimus Cove yard identified as Exhibit No. 325. I believe this is a print from the chief engineer's office. I am not positive because I got it from the division engineer's office but I think he went back to the chief engineer's for this particular print. We got it from the division engineer's office. As to where he got it, I could not say. I do not know who prepared the original. I am sure it was the chief engineer. I can not give you the exact date the map was prepared. I would say it is the most recent map they have. I went over to the di-
[fol. 1890] vision engineer's office and told them I wanted them to plot for me on a map Harsimus Cove showing the figures 105.18 acres outlined and this is what the division engineer gave me. The division engineer's office marked this map in colors to designate certain portions, including the 105 acres shown as bounded in yellow. I can only say that such marking was done in accordance with the record they have of the amount assessable by the tax authorities of New Jersey. As far as I know this coloring was done according to the actual metes and bounds of the different parcels. I only know that the division engineer turned this map over to me as a completed job. I could not say that I know what these parcels purport to represent so far as the metes and bounds of the properties shown are concerned, but I can show you the valuation maps of 1918.

By Mr. Eshelman:

The red sections represent the areas which Mr. Lamb introduced in his Exhibit 321 as shown on pages 117, 118 and 119 of the valuation order of the I. C. C. as being non-carrier property in 1918, at the date of valuation.

By Mr. Gwathmey:

So far as I know, I do not know whether they correctly represent those things or not except by what the engineer or somebody told me. I have the land maps here if you would like to peruse those.

[fol. 1891] I am not aware that the reports of my company to the Interstate Commerce Commission as of December 31,

1927, for the Harsimus branch show that no lands were added nor disposed of between June 30, 1918, and December 31, 1927, and that the total area was 79.3 acres of carrier land, both as of valuation date and as of December 31, 1927.

The entire area outlined by yellow is used as transportation property with the exception of the 9.57 acres and the area outlined in orange was stated as Berwind-White coal piers and plant. The source of the information on which I base that statement is the people in the Harsimus Cove district, our operating people. I do not think they said that what I have just said is correct, but they told me that that represented the Harsimus Cove yard.

Q. As of the valuation date, June 30, 1918, 101.24 acres were inventoried to the United New Jersey Railroad and Canal Company, Valuation Section 1.01 N. J., made up of carrier property 79.3 acres, and non-carrier property 21.94 acres, the last named figure being the property under lease by the various interests as follows: Rented to wholesale dealers in Jersey City, 35,428 square feet; Rented to Jersey City Stock Yards Company, 693,000 square feet; Various acres joint terminal facilities in New Jersey, 225,789 square feet; Total 955,539 square feet. Can you describe on the map filed as your Exhibit 325 all lands embraced in valuation [fol. 1892] Section 1.01 N. J. which have since valuation date been acquired separately and those that have been disposed of?

A. We had all that land at that date. It is enclosed in the red line. That will represent, with the exception of the 1322 feet which, according to our valuation order, was later granted by the I. C. C. that it was carrier property; therefore, that did not appear encircled in red. As to the property acquired subsequent to that date, I have not on the map and I could not myself plot it because I do not know what we have acquired since that date.

On my Exhibit No. 326 I have added 6.682 acres "pier head line to Henderson Street" described on the exhibit as first class property. This covers a strip 100 feet in width which the tax authorities classified as main line, but I want to clarify that in this respect: The State of New Jersey assesses a strip 100 feet as first class property and the adjacent sidings and tracks thereto in any yard as second class property, each carrying a separate rate. The so-called first

class property does not embrace main line tracks as distinguished from sidings and terminal tracks from our operating standpoint. That is simply a line drawn through to the farthest extremity of the yard for the purposes as stated of the taxing authorities to get as much as possible out of our assessment of our property for tax purposes. I can not give you mileage of the Harsimus Cove Branch, divided as [fol. 1893] between the first or main track, second track, third track and fourth track. I have not that information here. I do not know what was shown in the valuation order.

Mr. Gwathmey: We have examined the report and are prepared to verify the following figures: The valuation report shows as first or main track 1.478 miles; Second track 1.256 miles; Third main track .563 miles; Fourth main track .527 miles; other tracks 42.841 miles as of June 30, 1918.

By Mr. Gwathmey:

I am not in position to say whether or not this 6.682 acres shown on my Exhibit 326 as lying between pierhead line and Henderson Street, described for taxation purposes as first class, embraces any of that main track to which I have just referred. I have shown on Exhibit 326 6.2 acres as lying between Henderson Street and Brunswick Street, described as first class. I cannot say whether that contract embraces and covers any portion of the main line track to which I have referred.

The 22 industries or structures that are served by the Harsimus branch are not all designated on that map but the statement was made yesterday in my testimony that with the exception of those I named none were within the area outlined in yellow. Some of them are even without [fol. 1894] the boundaries of that map as shown there. I cannot show you where the Hudson Wholesale Grocery Company is located, nor the Eagle Grocery Company nor the Grocers Produce Company. I believe they are within that area between Warren and Provost at First Street but [fol. 1895] I do not want to say positively. I do not know where the Macaroon Manufacturing plant is. As I stated yesterday, it is without the yellow line. The buildings occupied by Butler Brothers are not on this map. The Baker Castor Oil Company plant is not on this map. I can not

point our the location of the plant of the Stillman-Delehanty-Ferris Company nor the plant of the S. Safire Company. It is not in any part of the yard. It is east of Brunswick Street. McCormick & Company I understand is located at Pier D. The American Export Line ties up at Pier F. I do not know where the Jersey City Stores, Incorporated, are located. I recall that you asked me to give the location of each of these plants but that is why in my testimony I said yesterday they were without the limits of the map or yard.

I testified yesterday that there are no express houses located on the connecting track between Harsimus Cove yard and the Jersey City passenger station. It is a fact that express is handled, loaded and unloaded, on certain tracks between the Harsimus Cove yard and the passenger station at a place known as the Scenery Yard on the tracks shown north of the words "Jersey City." I could not say positively whether any express is handled on the tracks shown east of Washington Street.

I did not include in my study any of those express cars [fol. 1896] that were handled to and from those tracks. They were not switched there by any of the freight yard locomotives. They were brought over the loop by passenger locomotives and put on those tracks. It is my understanding that those switch engines operating in this yard performed no service in connection with the handling of those express cars. My source of information is being on the ground and told by the yard master. The particular day I was in the section of the yard I should say was the 7th of December.

I have checked the various rentals collected by my company to see whether or not the figures named are correct and whether the company is still collecting these rentals. The only rentals that were checked were those that would be represented with property within what we considered the yard, that is within the yellow line as shown on this map. We checked others but we make no particular reference to that. The figures you gave me, from an I. C. C. report standpoint, are correct. I can not say at the present time whether all of the rentals are being received.

You asked me about a rental of $43,249.53 collected from the Hudson & Manhattan Railroad Company. I have ascertained that the tracks of the Hudson & Manhattan Rail-

road Company between Exchange Place and the Erie Station pass underneath the yellow area on that map. There is a rental collected from the Hudson & Manhattan Termi-
[fol. 1897] nal, it being on a joint facility basis. As far as we can develop the right to go under our yard was granted in 1905 on an easement right for 500 years for a payment in the neighborhood of $42,000, I think the figure was. I am told that the rental received today is a joint facility proposition in an arrangement we have with the Hudson & Manhattan. Journal Square east is maintained by the Hudson & Manhattan and Journal Square west by the P. R. R. That is the joint facility agreement.

By Mr. Eshelman:

The H. & M. tubes that run from Journal Square, Jersey City, to the Hudson Terminals in lower Manhattan do not pass under this Harsimus Cove freight yard. That is the section for which the rental is received and not for the property which Mr. Gwathmey described as lying between Exchange Place and the Erie Terminal. That is under the easement right granted in 1905.

By Mr. Gwathmey:

The Pennsylvania Railroad Company granted to the Hudson & Manhattan Company an easement to operate under this land in 1905 for 500 years, I think, for $43,249.55. The Hudson & Manhattan Railroad Company's annual report for the year ended December 31, 1930, shows under the item of "Miscellaneous Rents" an easement at the
[fol. 1898] Pennsylvania Station, Jersey City, name of the lessor Pennsylvania Railroad Company, and the amount charged to income of $43,249.55. I made no deduction or allowance in my cost study for amounts that may have been received by the Pennsylvania Railroad Company from the Hudson & Manhattan Railroad Company, for the reason which I stated that that rent had no application to any territory embraced in this study. There are trains running up to what they call the Erie Station out through Hoboken which would pass under this area.

The figure of 693,000 square feet shown at the top of my map in red is put in the record by Exhibit 321 of Mr. Lamb.

It is the same 693,000 square feet which is referred to in the valuation report, filed by Mr. Lamb as Exhibit 321 [fol. 1899] as being leased to the Jersey City Stock Yards Company. I could not state what proportion of the 693,000 square feet is embraced in the areas shown in green on my map. The 35,428 square feet referred to in the valuation report as leased by the United New Jersey Railroad & Canal Company and to wholesale dealers engaged in the business of storing and distributing butter, eggs and packing house products is located in the vicinity east of Henderson Street marked in red, which is now shown as Armour & Company, Cudahy and Master Mechanic's office. The so-called Ball Park section is east of Henderson Street, adjacent to that portion marked as "freight house." I can not give you the amount of rental received by the company for the areas shown in red as non-carrier property and listed on my map as A, B, C, D and E.

The point at which road runner service ends and yard switching begins is at Henderson Street. I would say the great majority of the cars of perishables when destined to the New York side are handled through transfer bridges 5, 6, 7, 8 and 9. I do not recollect saying on yesterday that the perishables destined for the New York side were handled through bridges 3, 4, 5, 6 and 7. Float bridges 8 and 9 are up in the extreme right-hand corner of the map adjacent to the Jersey City Stock Yards. Perishables destined to the New York side are handled in part through each of the float bridges from 3 to 9 but the larger portion would go through [fol. 1900] 5, 6, 7 and 8. I couldn't say through which one the larger part goes. It is approximately three fourths of a mile from Henderson Street to the waterfront. I will venture a guess that it is not quite half a mile from Henderson Street to transfer bridges 5, 6 and 7. It is approximately three quarters of a mile from Henderson street to the transfer bridges 8 and 9, more or less. When these cars come into Henderson Street they are brought in train load lots by road or runner engines.

There is no main line track, according to my understanding, inluded in this cost study. I do not recall whether the main line track which I referred to in my valuation report includes the line which runs down to the transfer bridges.

Referring to my Exhibit 327, the 24,962 cars listed on this exhibit represent the cars that are handled to and from the

territory which is embraced within the yellow lines on my map. They are cars that entered and left the yard, as a whole The 24,962 cars represent all that entered and left the yard but of course they have gone on to such industrial sidings as are beyond the yellow area. This figure does not purport to represent all of the cars that entered the Harsimus Cove Terminal during that period. It does not represent those express cars we were referring to. The 24,962 cars [fol. 1901] represent all the freight cars that entered and left the yards through Brunswick Street, as I took the numbers off. I got that figure in the yard master's office. He assigned men to assist the men from our office. I did not make the count myself on those cars. All cars going into or out of Harsimus Cove yard pass through the neck at Brunswick Street. There might be some freight cars that came in by float that had not been in the yard, but they would have been counted once on their way out. I cannot tell you [fol. 1902] how many of the total of 24,962 cars as shown on my Exhibit 327 were delivered to and received from points within the area bounded in yellow on this map and how many cars were delivered to or received from points outside of that area.

I understand that no citrus fruit and perishables coming into the yard are delivered to the American Export Lines. That information is based on what the yard master told me. Cars are delivered to pier warehouse K and L for export, particularly apples. I do not think that would include citrus fruits. Still other cars of perishables are handled for local delivery on the Jersey side and they are placed in the Ball Ground area.

My Exhibit No. 327 carries certain notes, one of which is to the effect that no passenger train cars are switched to and from the Jersey City passenger line. That is based on information received from the yard master and the same thing is true of the note reading "No other passenger train cars are switched." The cars shown as interchanged to the Erie Railroad and West Shore Railroad are included in the 24,962 cars.

The Exhibit does not mean that there was no intra-terminal switching revenue movement in the yard, but there is no intra-terminal in the sense that you asked for the distribution of the 24,962 cars and those cars as counted do not [fol. 1903] represent that intra-terminal movement. There

is no intra-terminal switching movement in connection with the count of 24,962 cars. I do not mean to say that there are not frequently intra-terminal switching movements within the terminal here for which revenue is received. There were eighteen cars in such movements during the test period. I did not make any allowance or credit or take into account in any way the revenue that we may have received on those intra-terminal switching movements. It does not frequently happen in this yard that a car of freight is delivered at one industry within the terminals, then handled in switch movement to a plant or to another industry within the same terminal.

Q. From page 14 of your Exhibit No. 230 I understand that during the test period 51.6 per cent of the entire movement of refrigerator cars to and from Piers 27, 28 and 29 consisted of loaded movement, and 48.4 per cent consisted of empty movement. Have you checked that or will you accept my figures based on a check of what is shown on your exhibit?

A. I do not see how it could be that high, glancing at it.

Q. Taking Exhibit 327 and page 14 of Exhibit 230, the figure of the total cars handled at Harsimus Cove yard other than perishable traffic moving to the New York side, 67 per cent consisted of loaded cars and 33 per cent empty cars. I want to ask you if you think it is entirely fair in [fol. 1904] making your cost study to treat all of the 24,962 cars as shown on Exhibit No. 327 in the same manner from the standpoint of the switching service regardless of whether the movement was loaded or empty or was handled in inbound or outbound movement? In other words, you have treated them all as though they were in identical movement, have you not?

A. We have gotten the average cost of handling a car in the yard and I may say here that we find that the perishable is a more costly proposition than the other commodity at Harsimus Cove so we have at least given you a conservative figure in that respect.

Q. Will you explain wherein the service is heavier in connection with the switching of citrus fruit?

A. The cars are received and they might be taken down to the bridge. Orders come to put them on the hold track. They are put in the hold track and they lay there. Maybe they are the last three cars down near the base of the yard.

Orders come to take them out and shift them over to piers 27, 28 and 29. That means pulling all the cars out, practically, and putting those back to take the three cars down to the bridge and all that is necessary with perishables, whereas other classes of commodities would not get such service.

I would not say a great deal of perishables handled in this yard do not go across to the New York side. I am not [fol. 1905] in the position to say on a percentage basis how much. It might happen that some they might shoot back into the Ball Grounds.

I am not in position to say whether the handling of empties moving in the reverse direction from the New York side through the transfer bridges up to Henderson Street is as expensive as handling the loaded cars inbound for delivery to industries like industries out in the Ball Park section, because we did not make an individual study. As I stated, we made a cost study and got an average per car of all cars handled. There was no discrimination, we thinking, as I said, that the perishables were getting the bulk of the service anyway. We use different motive power in connection with the delivery of loaded cars of citrus fruit to the transfer bridges and the return of the empties from the transfer bridges from what we use in other portions of the yard, such as switching to various industries. I would not say that the cars handled loaded per engine hour would be as great in number as those empty and, of course, it is greater than those going to industries. if that is your question. I have no explanation of the fact shown on my Exhibit No. 327 that 439 empties were handled into the yard in runner service and during the same period 8,840 were handled out in runner service. I feel that is sort of an operating question. I made the statement yesterday in my [fol. 1906] testimony that we were making what we considered strictly a cost study, developing the cost of handling a car. We were not interested in net return to the carrier. We wanted to know what it cost us to handle a car and, therefore, felt that we should not allow credit for amounts collected for terminal service such as storage and freight switching charges. We have not included in the study any credits for amounts collected at Harsimus Cove yard for terminal service such as storage of freight in the pier warehouses. The difference between such charges as have just

been mentioned and the allowance for terminal services which I did credit in Exhibit 328 covering Piers 27, 28 and 29 is that taking up the items more or less individually here, as to the credit at the bottom, we felt that in the case of Piers 27, 28 and 29 for which we pay rental that where we did receive a rental for the privilege of use of those piers for which we had paid it was a justified offset of the amount we were paying when somebody else was getting the benefit of using them as we would have done. It is a fact that I have made such credits on my Exhibit No. 328 but have not made them on the Harsimus Cove study, feeling that the credits are of a different nature. We have not allowed any credits in the yard study but have allowed certain credits in the station study.

I said something about having been unable to determine the locomotive fuel consumption at Harsimus Cove without having a man ride the locomotive. Had the man ridden the [fol. 1907] locomotive it would have been more or less merely an estimated figure as to the tonnage of coal put in the tender and worked out perhaps down to an hourly fuel consumption basis. It would have been arbitrary in the end, in my estimation, if we had even put riders on the engines.

Pier 29 is sometimes used for overflow of merchandise for Desbrosses Street station and the latter is sometimes used in the handling of overflow perishables. At the time of Mr. Neal's study to which I referred Pier 29 was used for merchandise and Piers 27 and 28 were used for perishables. There has been a change in the relative volume of total perishables and total merchandise handled since the time of Mr. Neal's study at these piers. As I stated before, it is strictly a 100 per cent perishable terminal. If merchandise is entirely excluded from Pier 29 it would be necessary for our company to enlarge its Desbrosses Street station in order to accommodate the merchandise traffic and likewise to enlarge Piers 27 and 28 at certain periods. I do not know what rental the Pennsylvania Railroad pays for the Desbrosses Street pier. That land is rented from the City of New York. A large volume of citrus fruit and other perishables which originate in the west is handled at Piers 27, 28 and 29. The Pennsylvania performs coopering in connection with those cars. We do not collect anything from

[fol. 1908] the western lines for that service, consequently no credit was allowed therefor on Exhibit 328.

Q. If this cooperage which you collect from the southern lines is prorated against those lines on a mileage basis, why should the Pennsylvania's payment on this account be included in this study of terminal costs?

A. Only the fact that we considered all costs of operating the station, Piers 27, 28 and 29, to the Pennsylvania R. R.

In response to a question that you submitted to me in advance of the hearing, asking for information in connection with my Exhibit No. 230, I have advised you as follows: "The following amounts were charged to operating expenses for repairs in 1927: Account 227, $1,101,067.12; Account 241, $442,133.68; Total, $1,543,200.80; Obtained from the City of New York on 20-year plan $623,411.32; Net cost to railroad, $919,789.48 as shown on page 14 of Exhibit No. 230." I also stated: "As the amount of $1,101,067.12 charged to Account 227 represented 71.3 per cent of the total charge of $1,543,200.80, 71.3 per cent of the net cost to the railroad company of $919,789.48 or $655,809.90 was considered as representing Account 227 and 28.7 per cent of $919,789.48 or $263,979.58 was considered as representing Account 241." I do not know the factors that determined the basis for the division of the $1,543,200.80 as between the City of New York and the Pennsylvania Railroad, the Penn-
[fol. 1909] sylvania Railroad's proportion thereof being $919,789.48 and the city's proportion $623,411.32. It simply came out of the negotiation between the City and the Pennsylvania Railroad. It is not a fact that the proportion to be borne by the railway constitutes repairs to make good deferred maintenance. This amount was charged to operating expenses.

Q. How can this charge be identified in the annual reports of your company to the Interstate Commerce Commission your report for 1926 having shown a charge of $311,550.64 and your report for 1927 having shown $726,115.58, a total of $1,037,666.22 as a charge to profit and loss?

A. This amount does not cover, as you stated, deferred maintenance. It covered the expenses in connection with the renovation of those piers to turn them over from a perishable and merchandise pier to the present standing of a perishable station, Piers 27, 28 and 29.

I justify the operating expense charge of $919,798.48 as being applicable to future traffic on the basis of your question, that we might have then put it all in one year, but we felt that an expenditure of such a large amount, inasmuch as the lease, as I stated, contemplated a lease for 20 years, we felt that the possible life of our expenditure would cover the life of that lease, considering it more or less on the basis of depreciation over that period of time. I think that that [fol. 1910] charge is properly applicable as against the traffic to be handled in the future. May I go further? Maybe you are under a misapprehension as to just what we put in our exhibit. We only put in on the basis of three-twentieths of the amount. That is what it would work out at, using three years as maintenance as a basis for our study, 1928, 1929 and 1930. We considered 3/20 applicable to those years.

I was also asked to furnish at this hearing a copy of the tax bills for the year 1930 covering the property listed in the upper section of page 6 of Exhibit 230, in which reply I stated: "No separate assessment for Harsimus Cove, as the State presents the bill covering the tax on the entire property of the railroad which is assessable by the State." The statement "no separate assessment" should have been "no separate tax bill for Harsimus Cove." The State of New Jersey issues each year a book covering in booklet form the transportation property to be assessed, showing by items the assessed valuation therein, from which booklet issued by the tax authorities this statement was prepared.

By Mr. Eshelman:

These papers which we submitted to complainants yesterday afternoon and to which Mr. Gwathmey has referred, arrive at certain hourly costs for the operation of various [fol. 1911] floating equipment used in the marine service between Harsimus Cove and Pier 28 and similar services operated out of that territory. That study was not prepared for the purpose of this case. It was prepared by the Pennsylvania Railroad for its own use entirely apart from this litigation. They are regarded by the Pennsylvania as dependable and conservative.

By Mr. Gwathmey:

The area embraced in the 9.57 acres would be of a greater value than the area shown on the upper side of the map,

being more area. The value per square foot in this section of the yard covered by Pier F. is not much higher than it is in the section of the yard which is embraced in Piers 8 and 9. I believe the value would be the same or is the same, the assessable value. The land is all assessed at the same value.

On my Exhibit No. 328 I have not allowed any credit for the charge of $2.35 which is collected by the Pennsylvania against consignee for stacking in connection with Florida citrus fruits. We allowed credit for the $2.35 which we turn over to the stevedoring company who does the work. I deduct an amount paid by the railroad company to the stevedoring company for western fruit on 352 cars received in April, 1931, at the rate of $2.35 per car. We did not make any similar deduction in connection with the amounts re- [fol. 1912] ceived on Florida citrus fruit. I want to look into the rough papers on that. I have some things written up in there as to why we made that separation. I would like to give you the answer a little later on that.

I know we make an interchange near Brunswick Street with the West Shore. We do not collect the $2.35 from the receivers on the sorting of any southern fruits. That only applies on western fruits. We have no tariff that makes a charge of this sort on southern fruit; only on western. We do not now make any collection on southern fruit in connection with the stacking. That has been suspended, as I stated previously in the record elsewhere. That is where I was confused before and why I wanted to look into it.

I have not been to Pittsburgh since the time of the last hearing. The heaviest period of arrival of citrus fruit at Pittsburgh is from 2 P. M. in the afternoon until 5 A. M. in the morning. That is the time of arrival of citrus fruit and the handling of it through the yard, I do not mean to say there is no movement at any other period. That was the heaviest.

The termini of the Conemaugh Division are Conpitt Junction to Butler, Pennsylvania, Pittsburgh to Venango yard, Pennsylvania, and Allegheny to Butler Junction. I do not think it is a fact that the Conemaugh Division of the Pennsylvania Railroad is located entirely on the north side of [fol. 1913] the Allegheny River. The termini of the Pittsburgh Division are as follows: Altoona to Pittsburgh, Pennsylvania, Summerhill to Central City, Pennsylvania, Traf-

ford to Saltsburg, Pennsylvania, Crescent to Fordham and Black Lick, Pennsylvania.

The blueprint map which I filed as Exhibit No. 300 shows the tracks included within the so-called 16th Street yard are embraced in the entire part of the map from Coleman yard to 11th Street. The citrus fruit comes in at Coleman yard and down through 11th Street or 16th Street. It is not a fact that cars come into this terminal at a point shown on this map between 27th and 28th street. It comes in at both ends of the yard, 11th Street, the bulk of it coming from Coleman yard. That which comes through the Cincinnati gateway and around, I believe comes in at 11th Street.

The reason I include within the area bounded in yellow on this map various sections lying east of 43rd Street yard and extending as far as 57th Street is because we consider the yard, from our study, from Coleman yard to 11th Street, in as much as citrus fruit came in at Coleman yard. I did not personally prepare this map. It was prepared in the division engineer's office. One representative from our office was present at the starting of the map. The division engineer's office traced the areas shown as bounded in [fol. 1914] yellow. The gaps between the various areas shown in yellow are what they call single track or double track main line. The- may call it main line. The taxing authorities do not tax that. They only tax other than what they term main line, where sidings and additional yard tracks appear.

I have included in my study the tax items on the portions that are bounded in yellow. I testified yesterday that no interchange was made with any carriers within the limits of the 16th Street yard. I include in those limits the description of that yard that I have just given. As we stated it in the testimony yesterday, 16th Street yard may have been sort of a misnomer but that was the point considered as the produce terminal and it was given that title at the time. I do not know positively whether we have a connection at or near 28th Street with the Baltimore & Ohio Railroad. We were told there was no interchange within the limits of this yard with the Baltimore & Ohio Railroad by the train master's office.

We determined that during the test period there were no intra-terminal switching services performed for which switching revenues were collected by going over the records

of the train master's office but I did not go over those records personally. I know there are a number of industries which require switching operations between 11th [fol. 1915] Street and 48th Street but I would not say that it was intensive or additional to services rendered to perishables. The switching to those industries is done by what are quoted as Class B engines.

The first floor of the Pittsburgh produce terminal is used for transportation purposes and assessed as such by the City of Pittsburgh, the same as the yard tracks, and so forth. The second floor is not considered transportation property nor used by the railroad and is considered taxable by the Allegheny County authorities as a county proposition. I did not make any allocation against the rented quarters of a proportionate part of the interest and taxes on the ground occupied by the building.

In response to a question which you submitted to me in advance of the hearing I have itemized the amount of $3,611.65 of station employees, shown on my original Exhibit 231 as between the various captions. I have included one reconsignment clerk, amount $144. I think it is proper to include in a terminal cost study the salary of a reconsignment clerk whose duties consist of handling reconsignment of cars, to the extent that we considered all the expenses connected with the station as a terminal charge. I was also requested to itemize Account 373, station employees, the amount being $5,967.92, and in response to that request I have itemized this account as follows: Clerks, $1,225.87; [fol. 1916] perishable fruit inspectors, $2,801.34; labor of cleaning around yards, etc., $1,940.71; total $5,967.92. I can not state the number of clerks and the number of fruit inspectors and the number of laborers.

I testified yesterday that "Team track labor does no recoopering work at Pittsburgh, this service being performed by platform labor. The expenses incident to such work were not included in the study." In answer to a question which you submitted in advance of the hearing asking that all credits be itemized applicable to Account 373, station employees, items 12 and 13, my reply was, "The amount included under Items 12 and 13 are the net figures. There was allowed in the case of item 12 $6,522.28, revenue received covering unloading service and recoopering on platform, the amount having been collected from the consignees

in accordance with tariff provisions." I do not think there is any conflict between those two statements. In other words, in the $3,611.65 the cost of the platform labor is not included therein. There is no platform labor in the $3,611.65. That is item 12.

We did not furnish the tax bills covering the property embraced in the 16th Street terminal. There are no separate tax bills received for the particular property shown on pages 6 and 7 as the bills are by wards and so presented by the City of Pittsburgh. The particular properties [fol. 1917] shown on the exhibit are in most cases only portions of the property included in each individual tax bill.

I am not familiar with the 59th annual report of the Department of Docks of the City of New York. The Desbrosses Street warehouse is adjacent to Pier 29. I do not know that our company pays separately for the Desbrosses Street terminal a rental of only $1,007.92. I only know and can show you the leases covering the property considered to be Piers 27, 28 and 29 as submitted to Mr. Lamb yesterday. The amount of rental shown on page 14 of Exhibit 230 is $278,654.24 as compared with the amount shown in the 39th annual report of the Department of Docks, City of New York, page 17, for Piers 27, 28 and 29 and bulkheads in the amount of $276,391.96, the difference being $2,737.28, representing 63 feet of bulkhead south of Pier 27. I do not know what the waterfrontage of the Desbrosses Street pier is.

Q. Mr. Heywood, we requested you also to furnish a statement showing for each project included in the amounts shown below as appearing on your exhibit No. 210 (a) its location and description, and general purpose (separated as to tracts and each kind of building or other facility); (b) the amount charged to capital and (c) the amount charged to operating expenses, income or profit and loss, to wit, [fol. 1918] New York, $1,771,608.15; New Jersey, $2,861,968.41; Philadelphia, Pennsylvania, $7,047,735.55; Pittsburgh, Pa., $6,071,454.77.

Have you prepared that information or are you prepared to submit it at this hearing?

A. No, sir.

R. C. Morse is assistant general manager at New York, of the Pennsylvania Railroad.

Q. In Docket 22,824 and 23,040, which, as I understand, was the New York Harbor case or the New York Lighterage case, Mr. Morse appears to have testified as follows; or rather, as quoted in the brief filed by the City of New York, and I want to ask you if these facts as attributed to Mr. Morse are correct: "Further evidence of extensive switching costs is given by Witness R. C. Morse, assistant to general manager of the Pennsylvania Railroad. Morse states (S. M. 5169) that in the delivery of freight in Jersey City to Butler Brothers, Hudson City branch, Waldo Avenue, numerous sidings, and so forth, it is received at the Meadows yard, is there classified, thence moved to Harsimus Cove, where it is again classified and set on different tracks for various territories and is then moved to the different sidings by shifter service."

Can you say whether or not those facts are correct?

A. No, I can not.

[fol. 1919] Redirect examination.

By Mr. Eshelman:

There are interlockers in the Harsimus Cove yard. I did not include in my study any charges for the maintenance of those interlockers. I mean by interlockers switch towers. I did not include in the expenses wages of the operators in that tower.

My best information is that the map which I show of Harsimus Cove yard is a very recent map, due to setting up the pier properties, particularly D and F, which have been recently installed with the warehouse there. I did not correctly state the amount of the consideration for the 500-year easement granted to the Hudson & Manhattan Terminal Company. I said, I think, $42,000. It was $22,700 for a 500-year easement right. I could find no record of a rental having been received for the tunnel under the Cove. The tubes of the Hudson & Manhattan from Journal Square through Exchange Place to the Hudson Terminal in Manhattan lie outside the Harsimus Cove yard. It is a joint facility arrangement between the Hudson & Manhattan and the Pennsylvania Railroad for that portion of a property outside of the yard from Journal Square to the Hudson & Manhattan Terminal. That is in that line to the Hudson

Terminal in Manhattan. Rental would not have anything to do with this study.

[fol. 1920] I have no way of telling whether what might be determined to be a main line for valuation purposes, in connection with Commission requirements, would be the same as carriers would consider main line from an operating standpoint.

The count of cars which was made for the purpose of this study was done under my direction. Loaded and empty cars in and out of the yard were considered. If it should be that the empty movement was less expensive, I would say it would therefore follow under my study that the loaded movement would be more expensive. My figure is the average of the loaded and empties.

No ocean going vessels are allowed to dock at Piers K and L and there is no dockage charge. I do not include any taxes on structures for Piers K and L in my study nor any maintenance for Piers K and L.

I said there was an overflow at times from Desbrosses Street to Pier 29. There is no real compensating feature in this only the fact that at certain times Desbrosses Street has been used for the overflow of perishables for carrier's convenience, only for overflow.

Recross-examination.

By Mr. Gwathmey:

The interlockers that Mr. Eshelman asked me about are [fol. 1921] used ordinarily by railroads in connection with main line service.

By Mr. Eshelman:

I did not mean to say they are not used in connection with anything but main line service. I said they are used in connection with main line service.

Maurice S. McClellan, having been first duly sworn, testified on behalf of the defendants as follows:

Examined by Mr. Eshelman:

I am yardmaster for the Pennsylvania Railroad Company at Harsimus Cove, New Jersey. I have been yard-

master about ten years and have been in the operating department of the Pennsylvania Railroad for twenty years.

The territorial extent of my jurisdiction as yardmaster at Harsimus Cove is the entire Harsimus Cove territory and the Jersey City passenger yard. It extends west to what we call the Grave Yard, Waldo Avenue. That is the separating point between the Harsimus Cove yard and the main line track to Jersey City. That is at the extreme west end of the Harsimus Cove yard, about 1900 feet west of Brunswick Street. That is a part of Harsimus Cove yard.

Express cars are not handled from the passenger station into the scenery yard or into that territory by Harsimus [fol. 1922] Cove yard freight switch engines but rather by passenger yard engines. The interlocking plant is situated between Henderson Street and Erie and controls the switches between those streets. The operators of the tower received $5.07 a day of eight hours. There are three tricks. The only other employees in that operation are the maintainers who keep the interlocking plant in order. There is one on each trick and they get approximately 75 cents an hour. They work eight hours a day. Some reference was made to a connection with the New Jersey Belt Railway. That connection is not from the Harsimus Cove yard.

Cross-examination.

By Mr. Gwathmey:

The Harsimus Cove Terminal is regarded by the Pennsylvania as relatively one of the large and important terminals on its system. All of the business that is destined to New York City is handled through that yard. Team track delivery on the Jersey City side is handled in the Ball Ground but there is not much industry in the Cove proper. We have handled as many as 4200 cars in and out of that terminal in one day. That was during very abnormal conditions. The reason that we handled so many at that particular time was on account of the bridges burning down in Greenville and we had to handle Long Island, Manhat- [fol. 1923] tan and other industries, such as Bush Terminal, through the Cove.

By Mr. Eshelman:

In that figure if a car went through the bridges it was counted once, if it came back through the bridges it was counted again and if it went out through Brunswick Street we counted it again.

By Mr. Gwathmey:

The normal movement in and out of that yard is about 1600 cars a day by rail. There would be the additional movement by float of about a thousand per day in and out.

The road service and runner service, in so far as our eastbound movement is concerned, ends at Grove Street, just west of Henderson Street. That is where the engines are cut off. Those cars come up to that point in long trains. Our M. D. 12 comes in with 125 cars. It is a little more than a half mile from Henderson Street to bridges 3 and 4. The train is at Grove Street. Henderson Street is about 11 or 12 cars from there. The distance from Grove Street to transfer bridges 5, 6 and 7 is a little over a quarter of a mile, and the distance to transfer bridges 8 and 9 is approximately the same as the distance to 3 and 4.

I will describe the manner in which a consignment of citrus fruit coming into the yard and commencing at the point where the yard switching begins, is handled through the yard if destined to New York City delivery. The train, [fol. 1924] as I said before, comprising anywhere from 90 cars to 125 cars in our M. D. 12, is cut off at Grove Street. Then we take our yard engine to Brunswick Street, get behind half of this train or as many as we can get, which is 48 cars on any one track. I might state further when a train of 125 cars come into the yard we have to make three separations. The first separation is made by the road crew, the second and third by the yard crew. We put our engine behind this first section, which is 48 cars, at Brunswick Street, and classify the cars, differentiating between the hold cars and the O. K. cars. That means all right for market. They are shunted to all bridges in order to speed up the delivery of it to piers 27 and 29. They are divided up between bridges 3, 4, 5, 6, 7, 8 and 9. In other words, we will have seven floats in those seven bridges. We send twenty to Green Street which is 3 and 4, thirty to 5, 6 and 7 and twenty to 8 and 9. We do that as a matter of conven-

ience and for the purpose of handling as quickly as possible across to the New York side.

I will now describe how a car is handled to transfer bridges 3 and 4. We will get a train, as I said, of 125 cars. That would mean approximately anywhere from 50 to 75 or 80 cut. That requires that many rides by car riders. Cars for bridges 3 and 4 will be cut off at Grove Street, shunted through the interlocker past Henderson Street down to what [fol. 1925] is known as the class yard. That is the receiving track for what we call Green Street territory. That is at the point on the map marked 4690. The cars to be put on floats are brought up this main track, running track, and shot through to the bridges 3 and 4. We can only put ten cars on a float. In handling cars to bridges 5, 6 and 7 from the Grove Street territory it would be identical with that to Green Street. To bridges 8 and 9 the movement would be that we would pull part of that train down into this yard called the Stock Yard. That is shown on the map right opposite the word "storage". We get an engine behind them up beyond Grove Street because, as I said, we split the train in three parts. We have an engine get behind a portion of that train, bring it down to the east end of the Stock yard to classify it, right in the angle shown opposite the word "shed" near the top of the map. The cars are classified there for 8 and 9 bridges, O. K. perishables, and we separate the hold cars. We move from that point directly to the transfer bridges.

Not many industries are located in the Ball Park area. They are outside the yard, on Provost Street, Bay Street and Warren Street. Those industries are treated as within the Cove district.

If a car of ordinary traffic comes in and is destined to an industry in the Ball Ground area like the Merchants Refrig- [fol. 1926] erating Company, it is brought in on the train, as before described, classified through the interlocking plant between Erie and Henderson Street to what is known as the Ball Ground ladder. The Ball Ground engine takes it off and places it in the Ball Ground. For the industrial switching in the Ball Ground area we use the A-5 or B type of engine. When we go to the industrial tracks such as Provost, Bay Street or Warren Street, it is necessary to change engines and get the A type engine because the other type

engines will not take the curves. They are too long.

There are certain cars of citrus fruit that come into this terminal area which do not go across any of these piers to deliveries on the New York side. They principally go to the Ball Ground for local delivery. We have had some go down to the American Export Line but not so much. When I said that citrus fruit goes to the Ball Ground, I was talking about perishables. 95 or 99 percent of the citrus is delivered to Pier 29, New York. There is practically no movement of citrus in the yard except what goes to those piers.

When we get empties from the New York side for movement outbound they are brought in through bridges 3 and 4, pulled up through the yard to the class yard again and then a reverse movement is made back into what we call J yard and back again to where they came from in front of [fol. 1927] the bridges. After that they are made up in trains and taken out of the yard to the Meadows. They are made up in trains down here adjacent to transfer bridges 3 and 4 and are moved in trains from that point to the Meadows, about five miles west. They are moved right through the Harsimus Cove yard on the yard tracks. There is no main line track in Harsimus Cove yard. When I referred to the main line track a while ago I meant the running track. When we mention main line that means passenger main line.

If empties come over on transfer bridges 8 and 9 they are pulled right up to Henderson Street or beyond Henderson Street, up to Grove and cut off by car riders and taken right back to where they came from. Then they are moved by runner service to the Meadows yard for reclassification. 5, 6 and 7, that is. Ordinary freight cars that are made empty after delivery to industries within Harsimus Cove terminal frequently secure an outbound load if they are P. R. R. cars. If a car is unloaded at some industry in the yard we would not take that car to another industry in another portion of the yard to be reloaded. We would take another car from the yard. Refrigerator cars invariably move out of the yard empty except for banana cars westbound. I could not give you the approximate percentage of the box cars or other equipment that comes into the yard loaded which moves out empty as compared with loaded. [fol. 1928] I would not say that the percentage of loads of the box and other equipment that moves outbound greatly

exceeds the percentage in the case of the refrigerator cars. I could not give you the percentage of the outbound box cars and other equipment that go out empty as compared with loaded. They have made a study showing the movement of loaded cars going westbound.

Our company keeps a report such as is usually kept by railroads covering yard costs which embrace the wages of the yardmasters, clerks attendants and yard crews and shows also the number of cars that are handled in and out daily, the total number of engines worked and the average cost per car. I do not have charge of that record. It is kept by the division accountant.

Redirect examination.

By Mr. Eshelman:

I spoke of the number of cars coming in on M. D. 12. We have other trains coming into the yard to be broken up but I just used the M. D. 12 as an illustration. We have smaller trains as well as these long trains. Inbound trains are received in the yard between Grove Street and Brunswick Street. That is the receiving yard for eastbound trains for Harsimus Cove. Yard switch locomotives work in this territory between Grove Street and Brunswick Street. That [fol. 1929] is where all of our classifying is done. In other words, our engines get behind all trains to classify them over what I call the interlocking plant.

When the trains go out the outbound yard would not be between Brunswick and Grove but might be down near the piers. Between Brunswick and Grove is the eastbound receiving yard. The runner crews and road crews for westbound trains depart from the stock yard, the new yard or J yard, at Green street. The whole thing is a part of the yard operation. The empties received through bridges 5, 6 and 7 coming back from piers 27, 28 and 29 are pulled more than a quarter of a mile. They are pulled up to Grove Street, cut off by car riders into either the stock yard or the new yard; as a matter of fact, they are pulled from the bridges and practically ridden back in the yard adjacent to the bridges for departure. I only described the classification of inbound cars of perishables going to Piers 27, 28 and 29 in so far as the cars are consigned that are O.K.'d for that night's market but the hold cars are put in

our hold yard and are reclassified the following day. The hold yard is directly opposite the class yard. We have cars in the stock yard that are also hold. As a matter of fact this yard is not sufficiently large to take care of all the perishables and we have to hold them on the stock yard side. The hold cars are pulled out of the class yard up to [fol. 1930] Grove Street, over this interlocker, then classified in front of the various bridges, that is bridges 3 and 4, 5, 6 and 7, and the same thing applies to the hold cars in the stock yard. They are pulled to the west end of the stock yard and classified in front of bridges 8 and 9.

We have on an average 250 cars of hold perishables every day. We take out of that hold, I judge, 150. That still leaves 100. Then we have other new hold cars coming in during that night. Those hold cars would be on various tracks in the new yard and the class yard, and out of those various tracks we would have to get these cars that were ordered out from the hold for delivery. That means redrilling about 25 tracks every day, some of the tracks requiring the services of two engines to pull them up on that elevation. I would say the handling of perishable freight destined to Piers 27, 28 and 29 and the reverse movement with the empties is a whole lot more difficult than the service of delivering cars to industries reached from our Harsimus Cove yard and their outbound movement. The handling per car of all traffic, including perishables, that goes across the float bridges is a more onerous and difficult service and involves a greater amount of time or effort than traffic going to the industries reached through Harsimus Cove Yard. The industries do not amount to much. They are not of great value. There are not many cars handled [fol. 1931] in there. It is a case of picking one car up and shoving it in and that is all there is to it. A car of perish- [fol. 1932] ables has to be handled ten times before you get it to the bridge. The Merchants Refrigerating Company handles at the most about eight cars a day at this time. Of course, when peaches are running they handle more, but the other industries do not handle anything at all to speak of, such as Butler Brothers and the Baker Castor Oil Company.

By Mr. Gwathmey:

When I speak of the other industries I mean all of the other industries that are switched in this terminal. I mean

Butler Brothers, Baker Castor Oil and the Merchants Refrigerating Company. They take the greatest volume. They are all the industries within the Harsimus Cove district and the business handled to and from those industries does not amount to much. It is inconsiderable compared with the whole. I should say not more than four hours per day of engine work would be expended on the industries.

By Mr. Clark:

The operation of a runner in Harsimus Cove yard territory is the same as would be given a train on the main line tracks from the point of view of dispatching. It is true that the runner can make a movement through the yard without any train orders on obtaining permission to occupy the main track. It differs from the main track operation to that extent. From the point of view of operating the [fol. 1933] train, there are no main tracks through the yard.

By Mr. Eshelman:

Harsimus Cove is a flat switching proposition, but from Grove Street to the bridges there is an incline. A car will run away if it is not ridden by car riders but it is not what we call a hump operation.

When I answered Mr. Gwathmey about using bridges 3 and 4, 5, 6 and 7, and 8 and 9 for our own convenience, I did not mean to intimate that it was not necessary to use those bridges or all of them for this perishable business. When the M. D. 12 comes in, which is an important train, we have to use all the bridges in order to get the perishables to the market. It is a question of necessity.

The floats that handle perishables are so constructed that you can only load five cars on each side. That makes ten. But in loading you can only shove two and one half cars on a side, then go back on the other side and shove the entire five on, then go back again to the side that you left the two and a half and shove them on. Where there is a low tide the cars become uncoupled, the couplers mount each other and the cars go off center. If a car is going to bridges 3 and 4 to go across to Piers 27, 28 and 29, two engines are used at Grove Street, between Brunswick Street and Grove, one engine classifies it and then one engine shoves it on to the float. It is classified once from Grove Street to the

[fol. 1934] class yard. It does not get any other classification. Then it is shoved through. On the empty movement there is one engine crew to each float. In other words, we have two engines assigned to 3 and 4 bridges, two to 5, 6 and 7 and one to 8 and 9. If a car is coming back through No. 4 bridge one engine and a runner crew would handle that before it is ready for make-up into a train. An empty car coming off of 3 or 4 would be brought back a quarter of a mile to the class yard and classified back to where it came from, only on opposite tracks, what we call our westbound departure tracks. That is done with the same engine that pulled them off the float. The engine that brings them down drops them in the proper track and the runner crews take them next.

By Mr. Gwathmey:

I spoke about devoting about four hours a day on an average to the switching to these industries. The Merchants Refrigerator Company gets about ten cars a day, Butler Brothers about four or five, Baker Castor Oil about one tank car a day, Peck & Hill about one car a day. I should judge there are not more than twenty cars a day.

[fol. 1935] C. P. Dixon, having been first duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am C. P. Dixon, Assistant Trainmaster, Conemaugh Division, Pennsylvania Railroad. I have been with the Pennsylvania Railroad forty years, twenty-seven as Assistant Trainmaster. I am familiar with all movements on the entire Conemaugh Division. I can compare generally the service involved in the switching of perishable freight in the Pittsburgh Terminal with the switching of industrial freight other than perishables as to the relative difficulty or expense. Perishable freight destined to the Pittsburgh Produce Terminal arrives on certain arranged service trains scheduled at certain times. On arrival in Pittsburgh they have to be met up with a yard engine and rushed direct to the produce yard and delivered on tracks in the produce

yard to meet with the schedule. Now, that means that any shifter working in the Pittsburgh yard is taken, no matter what else he is doing, he is taken to handle produce and produce trains on arrival at the produce yards. Those cars have to be put on certain tracks within the limits of the produce yard in accordance with the commodity in the car. For instance, if there are bananas in that train they have to be taken and put in what we call the banana yard north of 21st Street. If it is bulk freight, that is, freight that goes [fol. 1936] to another portion of the yard for team track delivery, that goes elsewhere. If it is package freight, what is known as ice on top of the lading, it goes to another part for sampling. It involves a terrific amount of shifting. Then these other cars that are on those trains are put in on tracks awaiting order for delivery to the auction house, the Union Fruit Auction, the Independent Auction, or the sales platform, whatever those may be. Those last are separate tracks. The Union Fruit Auction tracks are at the north end of the produce building, on the east side of the building. The Independent Auction Company are on the north end at the west side of the building. The sales platform is at the south part of those tracks. There are two tracks on each side. Now, the comparison there between handling produce and other manufactured freight is this, that you do not meet up with a certain schedule on industrial plant shifting. That is, when a car comes in you get an order and you take it and put it in the plant and you are done with it. In produce you are not. You have to watch it and get to the sales platform or auction house or reconsigned on an order and get it out and hook it up with the regular arranged train. Then we have the empties. You must have them away from the platform in time to allow the platform to open for truck service. It is a difficult move to get rid of them also. It is [fol. 1937] the difference. Any operating man knows what he has to contend with when he has a carload of high class perishable freight. He is going to give it special attention. In fact, he is required to. You do not have to do that with any other commodity you handle on a railroad, unless it might be live stock, and that is perishable too.

All the sidings in the territory from north of Nadine to 11th Street are short. The Pittsburgh yard extends from 11th Street to a point north of Nadine, covering a distance

of practically eight miles. It is operated under yard rules and regulations. It is not operated by any block signals, train orders or anything like that.

In handling produce from 43rd Street south, it has got a congested district. You have got a speed restriction of four miles per hour from 29th street down to 11th Street. You must have one of your trainmen get off and go ahead and protect every street crossing from 29th Street down to 11th Street before the train is permitted to pass over that crossing. Then you can not allow any trains to stand on those crossings. They must be cut immediately, on account of fire protection of industries between the railroad and the Allegheny River.

The minute that you stop a train the trainmen must be there and open the crossing for pedestrian and vehicular traffic. You can not block any crossing.

[fol. 1938] There is no comparison between the perishable movement and the industrial switching. Perishables absolutely predominate in importance and in difficulty and in anything you might wish to call it.

I wanted to make one correction as to the confines of the Conemaugh Division. Someone asked Mr. Heywood the question if the Conemaugh Division was not located on the north side of the Allegheny River. The Conemaugh Division extends from 11th Street, Pittsburgh, to mile post 120 south of Oil City. It also extends from Fort Wayne Junction, Pittsburgh, north side, up the west side of the Allegheny River to Conditt Junction which is just west of Johnstown, including the Indiana branch and the Butler branch and that portion of the Brilliant branch between N. Y. & V. I. That will explain that the Conemaugh Division is on both sides of the Allegheny River in that district.

There is no connection with the B. & O. at any place in the Pittsburgh yard between 11th Street and Nadine. The line on the Pittsburgh map in the vicinity of 29th Street that goes out toward the bottom of the map entitled "To Pennsylvania Station, Pittsburgh, Pa.," is a connection between 29th Street and 28th Street engine houses, but it takes you into the Pittsburgh passenger yard. Our engines that work in the produce terminal and some up in 43rd Street are housed in 28th Street. There are no passenger [fol. 1939] trains in that district. At one time it was used for passenger trains coming into the Pittsburgh district,

but we eliminated that service and the trains all went over the Brilliant branch but our freight engines, a portion of them, are taken care of at 28th Street engine house and they come in and out that way. There is no form of block signal used in that district. We receive no freight via 28th Street. That crosses Liberty Avenue, Prain Avenue, Smallman Street down to Railroad Street where our track it.

Cross-examination.

By Mr. Gwathmey:

Perishables coming from the south come down these tracks to 57th Street yard and 43rd Street yard where our yard engine gets it. The road engine is taken off at that point and the yard engine put up against the train which takes it south to the produce yard. There are industries located the entire distance between 62nd Street down to 29th Street and some clear down to 11th Street. That is absolutely all yard track between 11th Street and a point north of Nadine. It is operated under yard regulations and rules. Under the I. C. C. classification it is all yard track. I do not know how it is classified by the Interstate Commerce Commission. There is some indirect terminal switching performed from one side to another within the yard [fol. 1940] limits. Our company does make a charge for that. It is all covered by the tariff.

G. W. Lamb was recalled and further testified as follows:

Examined by Mr. Gwathmey:

I have made an analysis of Professor Cunningham's Exhibit No. 302 which is a statement purporting to show certain relative costs as between the eastern carriers and the southern carriers. I may say that I have the utmost respect for Professor Cunningham and I have known him for a number of years, it having been my pleasure to be on the same committee with him during 1918. When he was Assistant Director of Operations of the United States Railroad Administration I was staff officer in charge of accounts of the administration under Regional Director Markham at Atlanta, and both Professor Cunningham and I served on

the commmittee originating the OS forms now in use. The best of us make mistakes, and therefore Professor Cunningham is not immune.

I will direct attention to the following inconsistencies and errors of principle as used by Professor Cunningham in the application of the results shown on sheets 1 to 4 of his ex-
[fol. 1941] hibit as applied to the division of charges on citrus fruit from Florida to eastern destinations, particularly, and on cirtus fruit to Central Freight Association Territory.

1. In the first place, Professor Cunningham's study is based on the use of the entire eastern district (including Pocahontas region) and the southern region. In my opinion, the results reflected on sheet 1 of Exhibit 302 have no bearing on and do not properly reflect the conditions existing between the carriers involved in handling citrus fruit traffic in the East vs. the Southern carriers.

Only four carriers in the South and nine carriers in the East handle the citrus fruit traffic to eastern destinations.

As shown by exhibits previously filed by me the classes of traffic handled by the four southern roads and by the nine eastern roads differ very materially, and this is still further evidenced when the proportions of traffic interchanged is considered, and it is my belief that the interchanged traffic materially differs from the average traffic carried by the several interested roads.

Now, if you broaden this difference by the inclusion of the entire groups of roads in the East and South, respectively, the value of the statistics is still further diluted.

As bearing out the above statement, if we examine State-
[fol. 1942] ment No. 53 in the "Statistics of Railways of the United States," for 1929, published by the Interstate Commerce Commission, we find item 120, "Revenue per ton mile of freight," shows the following figures: Eastern District, 1.090 cents; Southern District, 0.903 cents. Southern region, which excludes the Pocahontas region, as does the Eastern District, 1.088 cents; Pocahontas Region, a subdivision of the Southern District, 0.642 cents.

The inclusion of the Pocahontas Region in the statistics of the Southern District has resulted in materially reducing the revenue per ton mile as shown on Exhibit No. 302 filed by Professor Cunningham.

2. Second, the results do not reflect the differences in costs of handling the commodity under investigation, but are the average costs of handling all commodities, and as stated by Professor Cunningham at page 1576 of the record, "The significance of these figures would be just as great for sand as for citrus fruit. * * * It is average figures." Therefore, as the average of a number of dissimilar things is misleading as to any one of them, the results are not applicable to citrus fruit traffic.

3. We are dealing with the movement of citrus fruit in carload lots and the figures shown on line 16 and line 37, "Freight service revenue per ton mile," represent the average received per ton mile for all commodities for all of the [fol. 1943] railroads in the eastern district (including Pocahontas Region) and for all of the railroads in the southern region for the transportation of hundreds of thousands of millions of shipments made under varying conditions and circumstances. Some shipments consist of a single package, weighing perhaps less than a hundred pounds. Some shipments were made in carload quantities. Some of the freights are very light and bulky and of considerable value per ton; others consist of heavy, coarse articles of comparatively small value per ton. The shipments move over varying distances. Some over short distances; some over longer distances; and others over the entire length of the road.

4. Likewise, in ascertaining for items 17 and 38 the "Freight service costs per ton mile," erroneous principles have been applied which therefore destroy the figures on lines 18 and 36, from which it naturally follows that the "Percent Southern Region of Eastern District," shown at the bottom of sheet 1, lines 43 to 48, are necessarily valueless.

5. Let us turn to sheet 2. Professor Cunningham states that the unassigned revenues, the total of which appears on line 92, represent a trifle over one per cent of all operating revenues, which is true; but an analysis of the items going to make up these figures shows that a much larger percentage would be directly assigned to freight service in the [fol. 1944] East than using the arbitrary basis of the di-

rectly assigned revenue which have no relation to the unassigned.

For example, item 90 on sheet 2, "Miscellaneous," which for 1929 amounted to $16,767,872, is substantially 95 per cent freight, because the bulk of the credits to this account are derived from wharfage and docks, substantially all freight.

As a matter of fact, every item listed, from 83 to 91, and from 137 to 145, inclusive, representing the unassigned revenue, will be found distributed by the carriers on Schedule 310, "Railway Operating Revenues," page 302 of annual reports to I. C. C., with the exception of a very small amount "not assignable to freight or passenger or allied services."

This criticism, of course, applies to both the eastern district and southern region, but as relatively more revenue is derived from docks and wharves—which are practically all freight—in the East than in the South, the error works more seriously against the South.

6. Let us now turn to sheet 4 of Professor Cunningham's exhibit. The first item, 157, is "Railway tax accruals." The source is shown, by note (f), as "Basic data from annual reports of the Interstate Commerce Commission."

Reports to the Interstate Commerce Commission by Class [fol. 1945] I roads show, on page 311, Schedule 350, a detail of taxes paid, and line 49 shows U. S. Government income taxes paid. The detail at the top of the same page shows income taxes paid to various other states.

Line 165, under the heading "Freight service costs," shows "Proportion of taxes," and under the column headed "Source," which shows the bases used in apportioning the various items, the formula is "157 times 101."

If we now refer to item 101 we find that it is the per cent amount of total operating expenses assigned to freight service. Under the heading "Passenger service costs," item 172 reads "Proportion of taxes," and the basis is "Line 157 multiplied by 102." Item 102 is shown by sheet 2 as the passenger percentage of total operating expenses assigned.

Let us now turn again to sheet 1 of the exhibit for the southern region, line 29, "Net railway operating income, passenger and allied services." It will be noted that from 1926 to 1930, inclusive, the passenger service of the south-

ern lines was operated at a deficit. Therefore it is entirely improper to use operating expenses as the basis of assigning income taxes, because of the fact that there was no income, upon which a tax could be assessed, from the passenger service, and that so far as the southern region is concerned the entire amount of income taxes should have been [fol. 1946] charged against freight service.

At page 1573 Professor Cunningham testified, "Since then (1925) there has been no net railway operating income from passenger service * * *"

This was in connection with the southern region. When there is a railway operating income from passenger service it is, of course, proper to assign to the passenger service a proportion of income taxes, but the distribution of income taxes should not be made on an operating expense basis but on the basis of net railway operating income, passenger and freight respectively.

7. Adjustment for non-revenue ton miles: By reference to lines 180, 181 and 182 for the Eastern District and items 212 to 214 for the Southern Region, the figures are shown for fuel burned in freight road service and passenger road service and total road service, respectively. Line 183 shows the per cent passenger service of total for the Eastern District, and line 215 per cent passenger service of total for the Southern Region. It will be noted that the non-revenue ton miles, shown on line 178 for the Eastern District, and non-revenue ton miles for the Southern Region, shown on line 210, are multiplied by the "Cost per total net ton mile (cents)," lines 185 and 217, respectively, for the Eastern District and Southern Region, to apportion to the passenger service the cost of handling the non-revenue ton miles, [fol. 1947] ascertained on the percentages of fuel burned in freight road service, passenger and freight, respectively.

The cost per total net ton mile, shown on lines 185 and 217, for the eastern district and southern region, respectively, are based upon the total cost assigned to the freight service, including the cost of yard service, which in turn include fuel consumed by yard locomotives.

The coal consumed by engines constitutes the largest part of non-revenue ton miles. I find for the first nine months of 1931 the fuel consumed by yard locomotives represented approximately 18 per cent of total fuel consumed for the eastern district (excluding Pocahontas Region) and 14 per

cent for the southern region (excluding Pocahontas Region).

While it is true that fuel burned in road service represents the creation of distance as measured by ton miles, it does not seem proper to eliminate or exclude in the adjustment of non-revenue ton miles the cost of fuel consumed by yard locomotives. While it is also true that yard locomotives are not creating ton miles in the ordinary sense, the expenses of the fuel burned by yard locomotives are included in the "Cost per total net ton mile (cents)" used by Professor Cunningham in adjusting for non-revenue ton miles.

That this reasoning is sound is borne out by Professor [fol. 1948] Cunningham's own testimony in the New England Divisions case, for in that case Professor Cunningham on his Exhibit 621, page 4, shows a footnote reading as follows: "(f) Non-revenue ton miles divided between freight and passenger service in proportion to charges to fuel accounts 382 and 394." Account 382 is "Fuel for Yard Locomotives." Account 394 is "Fuel for Train Locomotives"; and at page 7411 Professor Cunningham testifies as follows:

"Now, it is a fact that the freight service costs of expenses bear the entire burden of non-revenue ton miles. Non-revenue ton miles are mainly company fuel, and part of that is chargeable to passenger service. In order that the freight service cost may be given credit for the passenger service proportion of the non-revenue ton mile costs, I have divided the non-revenue ton miles between the freight service in proportion to the charges to the train and yard fuel accounts."

8. Professor Cunningham was inconsistent in the method used in the present case as compared with the method used in the New England Divisions case, not only in the basis for apportioning non-revenue ton miles, but in the application of the costs in determining the adjustment in the charges to the passenger service for handling non-revenue ton miles. He used in the non-revenue ton mile adjustment in this case a proportion of all costs, including uncol- [fol. 1949] lectible railway revenues, taxes, equipment rents and joint facility rents, while in the New England case he used only 50 per cent of such costs.

I again quote from page 7411 of Professor Cunningham's testimony in the New England Divisions case:

"Having already found in item 86 an average cost per total net ton mile, I have used that figure in getting at item 89, cost of passenger proportion of non-revenue ton miles, but instead of taking the average cost I have taken one half of the average cost on the assumption that non-revenue ton miles are a by-product and should not be charged in a study of this kind with the total average costs, but simply the direct expenses, which in my judgment are not more than one-half, and very little less than one-half. As a partial authority for that principle I refer to the ruling of the Interstate Commerce Commission with respect to transportation for investment account, which prohibits a railroad from crediting its operating expenses with more than seven mills per ton mile for the movement of company freight. That was given as a maximum. Whatever criticism can be leveled at the basis, it is used the same way on both sides, and I offer it as my best judgment as to a fair basis of getting at the facts."

I am unable to see what relation uncollectible railway revenues have with non-revenue ton miles. Apparently [fol. 1950] Professor Cunningham did not consider the charges to this account as a proper expense in the New England Divisions case, but he has included it in the present case.

I fully agree with Professor Cunningham's views as expressed in the New England Divisions case, which testimony I have quoted above, when he states that "non-revenue ton miles are a by-product and should not be charged in a study of this kind with the total average costs, but simply the direct expenses," and if "simply direct expenses" are to apply, Professor Cunningham then should have eliminated all items other than direct operating expenses and excluded from his costs the proportion of taxes, uncollectible railway revenues, etc., which are not in any wise incurred in the handling of non-revenue traffic. If there were no passenger business the freight service would have to stand all of the expenses.

In analyzing the reasons for the shift in the principle of apportioning this adjustment in the New England case and in the present case, I developed that for the southern carriers non-revenue ton miles represented 40.91 per cent of the non-revenue ton miles of the eastern district, whereas the revenue ton miles represented only 23.83 per cent.

In the New England Divisions case the percentage for the New England carriers and the total of the three regions, Great Lakes, Central Eastern and Pocahontas were [fol. 1951] substantially the same.

The carriers in the southern region are compelled to haul their coal for long distances, not being as favorably located with respect to the coal supply as are the eastern carriers.

9. Attention is drawn to the fact that part of the non-revenue ton miles used by Professor Cunningham in his adjustment as between passenger and freight are non-revenue ton miles incurred in handling company material used in additions and betterments work. Possibly Professor Cunningham has overlooked the fact that freight operating expenses have already received credit for these ton miles through the debit to account "Transportation for Investment-Credit," relieving the freight operating expenses of a proper proportion of expense incurred in handling these non-revenue ton miles. This inclusion again is a duplication.

Right here I might again call attention to the fact that there should be no distinction between the credit to freight expenses for non-revenue ton miles incurred in handling company material used in additions and betterments work and non-revenue ton miles incurred in handling coal and other material and supplies used in operations.

As the Commission does not permit a carrier crediting its operating expenses with more than seven mills per ton mile for the movement of company freight, as testified to [fol. 1952] by Professor Cunningham in the New England Divisions case (which testimony I have previously quoted), in my opinion there is no justification for the inclusion in his adjustment for non-revenue ton miles all of the extraneous items used by him.

10. It is noted that in both cases Professor Cunningham has used not only operating expenses, but railway tax accruals, freight car hire, locomotive rents, floating equipment rents, and joint facility rents in the New England case in ascertaining the cost per total net ton mile, while in the present case he has used "operating expenses, taxes, uncollectible railway revenues (which was not included in the New England case), hire of freight cars, proportion of

other equipment rents and proportion of joint facility rents."

11. By reference to sheet 4 of Professor Cunningham's exhibit, lines 169 and 201, "Proportion of joint facility rents," it will be noted that under the column headed "Source" is shown as assigned to the freight service on the operating expense ratio, items 101 and 155.

It is improper to use total operating expenses for the distribution as between passenger and freight of the joint facility rents. Under this method Professor Cunningham in 1929 charged 74.34 percent of joint facility rents to freight, as shown on sheet 2, item 101. Had Professor Cunningham taken accounts 278 and 279, "Maintaining Joint Track, Yards and other Facilities," Debit and Credit respec- [fol. 1953] tively, Accounts 336 and 337, "Maintaining Joint Equipment," Debit and Credit respectively, Accounts 390 and 391, "Operating Joint Yards and Terminals," Debit and Credit respectively, Accounts 412 and 413, "Operating Joint Tracks and Facilities," Debit and Credit respectively, and Accounts 461 and 462, "General Joint Facilities," Debit and Credit respectively, representing the maintenance and operation of joint facility properties for which the rents were paid, he would have charged to freight in the eastern district 53.44 percent instead of 74.34 percent. Further, in joint facility rents are included taxes on such joint facilities, but Account 532, "Railway Tax Accruals," includes nothing for the taxes on joint facility rents and the operating expense factor used for dividing railway tax accruals as applied by Professor Cunningham are also faulty to this further extent.

Let me illustrate this by the Jacksonville, Florida, Terminals, operated jointly by the Atlantic Coast Line Railroad and other carriers. No taxes are accrued in the Atlantic Coast Line railway tax accruals, Acccount 542, for account of Jacksonville Terminals, but expenses incident to operations of the Jacksonville terminals are included in operating expenses joint facility accounts. As these are passenger terminals, and in the separation of operating [fol. 1954] expenses are charged to passenger, which tends to increase our passenger operating expenses, and when such operating expenses are used in the distribution of the

taxes it pulls into passenger and relieves freight of an excessive amount of ad valorem taxes on the Atlantic Coast Line Railroad which have no relation to the joint facility accounts.

12. This is not all in connection with the adjustment for non-revenue ton miles, for it seems that Professor Cunningham has not completed the adjustment between passenger and freight, because while he has relieved the freight service and charged the passenger service with an adjustment for non-revenue ton miles handled in freight service, he has failed to make a corresponding adjustment debiting freight service and crediting passenger service for the services performed on passenger trains for account of freight service.

For example, under present-day conditions there is a very light revenue passenger traffic. A very large proportion of passengers carried on passenger trains are "deadhead", freight traffic representatives, either soliciting freight or attending rate hearings, and in addition thereto there are handled on passenger trains company mail, emergency material and supplies, loss and damage claim papers, "deadheading" freight crews, and many other items for account of the freight service.

[fol. 1955] Another element to be considered if we go to the refinement of adjusting operating expenses between passenger and freight is the expense of freight trains taking sidings to permit passenger trains to pass. This item had no consideration whatever by Professor Cunningham.

13. Again, under the bases used, the assumption is made that it costs the same per net ton mile for coal, rail and other heavy-loading company material, embraced in the non-revenue ton mile adjustment, as it costs per net ton mile for l. c. l. freight and light-loading commodities.

Therefore, when the average cost of handling all commodities is used, averaging as shown for the eastern district (including Pocahontas Region) 29.6 tons for 1930 and 24.9 tons for the southern region, whereas company coal will average from 50 to 70 tons per car, the cost for handling company material should be reduced.

In connection with handling material and supplies in addition and betterments work an average of five mills is ordinarily used, and if the cost used by any carrier exceeds seven mills a detailed explanation of how such costs are

obtained must be filed and justified before the Interstate Commerce Commission. This in connection with the adjustment of valuation.

14. It seems to me that Professor Cunningham has also been inconsistent when he comes to distributing the tenta- [fol. 1956] tive property values shown on sheet 1, items 13 to 15 for the eastern district, and 34 to 36 for the southern region. The note at the bottom of sheet 1 of Exhibit 302 reads, with respect to line 15, "Apportioned to the two classes of service on the basis of operating expenses." It will be noted from items 4, 5 and 6 that operating expenses, freight and passenger, have been brought forward from lines 187 and 188 in the case of the eastern group, and for the southern group from lines 219 and 220.

Professor Cunningham states in connection with the adjustment for non-revenue ton miles, shown on sheet 4, that certain expenses originally charged to the freight service are properly chargeable to the passenger service.

If this be true, for the purpose of ascertaining the cost per ton mile, and the passenger expenses should properly be charged with a proportion of the expenses so incurred by the freight service, it logically follows that to be consistent, if the adjusted expenses are proper in the case of ascertaining the costs per net ton mile, the same expenses are proper in assigning the tentative values of property. To be consistent Professor Cunningham should have used the cost per net ton mile based on the operating expenses shown on line 164 and 196 for the eastern and southern regions respectively.

In testifying in this case, at page 1566 of the record, I [fol. 1957] find the following statement made by Professor Cunningham: "For the southern lines Witness Lamb in effect used the basis of operating revenue when he based his comparison on the traffic unit, inasmuch as the three to one ratio of passenger miles to ton miles is based on relative unit revenues. Mr. Lamb, however, subsequently at page 1538 of the record, specifically condemns the revenue basis, I agree with Mr. Lamb in that conclusion."

It seems to me that the Professor has had to go far afield to reach any such conclusion. In the first place, no separation was made of property values or operating expenses in connection with the use of the equated traffic unit. Can Professor Cunningham say and support such a contention

with respect to the use of the equated traffic unit shown on sheet B of Bassett's Exhibit 226, which shows the use of the ratio of expense per passenger mile to expense per revenue ton mile as the basis for equating the passenger miles?

Here no revenues are included and the equation factor is merely used for the purpose of putting a ton mile and a passenger mile on an equality. It so happened that in my original exhibit I used the equated traffic mile ascertained on the ratio of three to one, which was the generally accepted basis, but which was subsequently discarded and the actual ratio used.

[fol. 1958] I might have used the operating expense ratio in an effort to bring the passenger mile and the ton mile on an equality just as well as the revenue basis for when the equated traffic unit was originally adopted it was assumed that the expense was substantially three to one, the same as the revenue.

I had likewise prepared an exhibit using the operating expense ratio which would be applied in identically the same way, but at no place on any exhibit filed by me was a separation made of property values or operating expenses as between passenger and freight, and for the very reason that the equated traffic unit avoided complications and uncertainties which always follow the division of properties and expenses between the two services. No effort was made by me to assign property value to passenger or freight traffic, and in my opinion Professor Cunningham's statement at page 1566 of the record is misleading and unwarranted.

Professor Cunningham used the tentative values adopted by the I. C. C. in the 1920 rete case, Ex Parte 74, plus subsequent net additions and betterments to investment account as shown by Note A, Sheet 1, of Exhibit 302. In the recent 15 percent rate case, Ex Parte 103, the Commission filed as exhibit 1 a compilation of financial and operating statistics, on page 27 of which table 24 is shown. The table [fol. 1959] shows the net book value adjusted by districts for thirty class 1 railways and non-operating subsidiaries, including switching and terminal companies, which table shows in column 1 the net book value, December 31, 1930, Account 701 and 702, investment in road and equipment, less accrued depreciation, Accounts 775 and 776; in column 2 the I. C. C. tentative final values adjusted to December 31,

1930, adjustments based on annual report. Column 3 shows column 1 distributed according to districts proportion of column 2. Column 4 shows column 3 plus working capital. I obtained from Dr. Lorenz of the Commission similar information for class 1 roads, only eliminating switching and terminal companies. These figures are more up to date than the figures used by the I. C. C. in Ex Parte 74. I am unable to exclude certain property in Canada in the eastern group and that part of the Illinois Central Railroad south of Cairo, which really belongs in the southern group. I have substituted for Professor Cunningham's tentative valuation shown in lines 15 and 36 for the eastern district and southern regions respectively, the figures developed in Ex Parte 103 as explained above for 1930, using 11,274,000,000 for the eastern district, including Pocahontas roads and 3,087,000,000 for the southern region, excluding Pocahontas. Without attempting to adjust Professor Cunningham's operating ratio shown on lines 101 and 155 for such [fol. 1960] errors as I have pointed out which exist and applying for the East 72.52 percent for freight and for the South 73.10 percent for freight, I find that the rate of return on investment in 1930 is for the East, freight 5.83, passenger deficit, total 3.89 percent. South, freight, 5.71, passenger deficit, total 2.86. Percent of Southern region of Eastern district freight 97.94, total 73.53 percent instead of freight 101.98 and total 76.76 percent, as shown by lines 46 and 48 of Professor Cunningham's Exhibit No. 302.

I should just like to read into the record the latest available information as to the rate of return on property investment for the ten months ended October 31, 1931. This is taken from a statement published by the Bureau of Railway Economics. It shows for the eastern district including the Pocahontas region, 1931, 2.30 percent, southern district, excluding Pocahontas region, 1.34 percent, the southern region return on investment for the ten months of 1931 being 38 percent of the East. That is the return on book investment that the Bureau gets out currently every month.

Now, turning to exhibit filed by Mr. Bassett, Mr. Bassett's exhibit covers the three years 1928, 1929 and 1930. There are several features with respect to this exhibit to which I should like to call attention.

The second item shown is "Taxes." For the year 1928 [fol. 1961] for the southern region the $50,940,832 included $7,442,992 of income tax. In 1929 the $51,147,373 included Federal income taxes amounting to $8,055,414. I was unable to get the income taxes paid to the State. That represents Federal income tax. By reference to line 10, under "Freight proportion," it will be noted that the taxes in column 2 have been apportioned to freight on the percentage of freight proportion of operating expenses, which for 1928 assigned to the freight traffic 74 percent; in 1929, 74.25 percent. In both of these years the entire amount of income taxes should have been assigned to freight in the southern region, because of the fact that the only net railway operating income upon which income taxes could be assessed was from the freight service, as it has previously been brought out in connection with Professor Cunningham's exhibit 302 that for the year 1926 and subsequent years the southern region operated its passenger service at a deficit. Therefore, no income tax can properly be charged against the passenger service for the southern region.

Item 3 is "Net equipment rents." Either Mr. Bassett or Professor Cunningham, if not both of them, is wrong in the apportionment of equipment rents to the freight service, for it will be noted that for 1928, on line 11, Mr. Bassett assigned in the eastern district $30,504,242 to the freight service. If we refer to Professor Cunningham's Exhibit [fol. 1962] 302, sheet 4, for the year 1928 we will note that Professor Cunningham, line 167, assigned to hire of freight cars $38,031,723, and on line 168 a proportion of other equipment rents, $988,566, a total of $39,020,279, as compared with $30,504,242. Mr. Bassett is under Professor Cunningham $8,516,037, or a difference of approximately 28 percent. A similar comparison for the south will show that the difference between Mr. Bassett's figures and Professor Cunningham's figures are approximately 30 percent. Some one is wrong.

Item 4, "Net joint facility rents." The same criticism applies to Mr. Bassett's exhibit as previously made in connection with Professor Cunningham's exhibit, in that Mr. Bassett has used total operating expenses in assigning net joint facility rents, whereas he should have adopted the joint facility operating expense accounts, which more nearly measure the use of the joint facility accounts than do the

total operating expenses of the operating carriers. Mr. Bassett charged 74.34 percent to freight in the eastern district, whereas he should have charged only 53.44 percent.

The next item on his statement, "Uncollected revenue" is likewise apportioned, on line 13, to freight on the operating expense basis. Here again there is an inconsistency between the method used by Witness Bassett and Witness Cunningham. Professor Cunningham assigned 100 percent of [fol. 1963] uncollectible revenues to freight. Mr. Bassett uses the operating expense ratio.

Again, the same criticism applies to this exhibit so frequently expressed by me in connection with other exhibits filed by the eastern carriers, in that it purports to show the conditions in the eastern district (including Pocahontas region) as compared with the southern region. It is absolutely worthless for the purpose of determining the relative conditions of the four southern carriers and the nine eastern carriers handling the citrus fruit traffic to eastern destinations and of the carriers handling the citrus fruit traffic to Central Freight Association territory.

The calculations as to revenue per car, per ton mile, etc., reflect the average conditions of the eastern district and the southern region.

The general statistics of railways and the I. C. C. published reports include the Pocahontas region in with the southern region. In fact, the Commission shows the Pocahontas region as a subdivision of the southern region.

You may produce entirely different results by the inclusion or exclusion of the Pocahontas region in either the eastern or southern group, by reason of the very low rate per ton mile from its tremendous coal traffic, its extremely heavy traffic density and its heavy investment per mile, the latter [fol. 1964] being due to the location, generally speaking, in the mountainous country. By the mere transfer of its enormous volume of tonnage from one district to another it is possible to produce a distorted picture, and that is exactly what has been done by Mr. Bassett and Professor Cunningham by the inclusion of the statistics of the Pocahontas region.

The roads in the Pocahontas region handle no citrus fruit traffic to eastern destinations and their statistics have no place in any statistics or results to be used in fixing divisions of rates on citrus fruit.

As bearing out the above statement, if we examine statement No. 55 in the "Statistics of Railways of the United States," for 1929, published by the Interstate Commerce Commission, we find item 120, "Revenue per ton mile of freight," shows the following figures: Eastern District, 1.090 cents; Southern District, 0.903 cents. Southern region, which excludes the Pocohontas region, as does the eastern district, 1.088 cents; Pocohontas region, a subdivision of the southern district, 0.642 cents.

The inclusion of the Pocahontas region in the statistics of the eastern district has resulted in materially reducing the revenue per ton mile as shown on Mr. Bassett's exhibit as well as on the exhibit No. 302, filed by Professor Cunningham.

[fol. 1965] It will be noted that items 16 and 17 on Mr. Bassett's Exhibit 322 do not correspond with items 16 and 17 on Professor Cunningham's Exhibit 302. It will be found that for 1928, line 18 of Professor Cunningham's exhibit, shows net railway operating income, freight, per ton mile as .254 cents; Mr. Bassett shows .320 cents. In 1929 Professor Cunningham shows .261 cents; Mr. Bassett .326 cents. In 1930 Professor Cunningham shows .242 cents; Mr. Bassett .277 cents for the eastern group. For the southern group Professor Cunningham shows, on line 39 for 1928, net railway operating income per ton mile .280 cents; Mr. Bassett .331 cents. In 1929 Professor Cunningham shows .285 cents; Mr. Bassett .332 cents. In 1930 Professor Cunningham shows .274 cents; Mr. Bassett .300 cents.

Again some one is wrong and, in my humble opinion, both are wrong, as I have endeavored to point out in my testimony.

I should also like to refer to Mr. Bassett's Exhibit No. 323, two sheets. In my opinion the results reflected on that exhibit are absolutely worthless in connection with the Citrus Fruits Divisions case and the inclusion of the Pocahontas region report in it, when we have only four carriers in the South and nine carriers in the East on the traffic to eastern destinations, a greater number of carriers in the South and [fol. 1966] a slightly greater number in the East to the C. F. A. territory, the inclusion of the Pocahontas roads or the computation based on the entire eastern district and southern region, in my opinion, is worthless in determining the merits of this case.

I would like to state that in Ex Parte 103, as shown in I. C. C. Exhibit No. 15, for class 1 railways, rate of return on reproduction costs, the Southern railways return on total cost of reproduction new—this is for 1930, as reported by the Commission—I only have for that one year—the eastern district including the Pocahontas, 2.90, southern region, 2.78, southern region being 78.62 of the eastern district. Based on total cost of reproduction new less depreciation Eastern district 3.53 percent; southern region 2.76 percent; southern region 78.18 percent. Total cost of reproduction, 1931 spot prices, plus working capital, land and rights new, eastern district 2.98 percent, southern region 2.33 percent, southern region 78.18 percent, and based on the above figures less depreciation, eastern district was 3.62 percent, southern region 2.82 percent, southern region being 77.90 percent of the eastern region. For the first six months of 1931 the percentages under the four bases I have just given, the southern region was 67.59 percent, 67.51 percent, 68 percent, and 67.48 percent respectively of the eastern district, following the same four bases.

[fol. 1967] It is my opinion this exhibit was filed by the Commission. It is headed Exhibit No. 15 as shown in I. C. C. No. 15. I understand this is copied from Exhibit 15. It is just a copy of that exhibit. In other words, any way you look at it the South is not getting as fair a return as the East, even if you take the Pocahontas region included.

There was one other item I would like to get in this record. I think it was possibly covered. That is in connection with the Harsimus Cove yard studies. Valuation Section No. 1.01, New Jersey, shows for the Harsimus Cove branch as of June 30, 1918, first main line track 1.478, second main line track 1.256, third main line track .563, fourth main line track .527 and other tracks 42.841. That is from the Valuation Section of the Commission's report. It is Valuation Section No. 1.01-New Jersey, in connection with the valuation of the Pennsylvania Railroad.

Cross-examination.

By Mr. Beach:

The inclusion of the Pocahontas lines' statistics in the eastern district resulted in a reduction in the average revenue per ton mile. It seemed to me that resulted in an ad-

vantageous showing so far as the district as a whole was concerned. It brings down the percentages. The eastern district shows 1.090 cents, the southern district .903 [fol. 1968] cents; the southern region which includes Pocahontas as it does in the eastern district, 1.088 cents, slightly below the eastern, but the Pocahontas region is .642 cents. It shows when you include it in the southern district it pulls ours down from 1.088 cents to .903.

It is my view that these statistics of all class 1 carriers for the respective districts are not pertinent in this particular proceeding and that individual line statistics are more nearly representative.

As to every car of traffic that originates on the Seaboard or Atlantic Coast Line in Florida or elsewhere, the number of lines that participate in the traffic destined to Trunk Line and New England territories would depend on the route over which the traffic moves. I would not be in — position to answer that because I have never made a study of it. I would not say that precisely the same lines would participate in the movement of all that traffic that participated in the citrus fruit traffic. I would not say that of the Florida traffic that moves to New England and Trunk Line territories. On traffic originated in Florida, destined to eastern destinations, the Seaboard and the A. C. L. would haul it into Acca and turn it over to the R. F. & P. and the Pennsylvania and B. & O. would take it up at Potomac Yard. Any traffic originating in Florida, moving over the same line, it would be axiomatic if it originated at the same point [fol. 1969] in Florida and was turned over to the R. F. & P. at Acca or Richmond, it would depend on how that traffic moved after it left Potomac Yard as to what lines it would go over. Citrus traffic may move to New York or it may move to Boston. I could not say as to any traffic or any commodity that originates on the Seaboard or the Atlantic Coast Line in Florida or elsewhere on our line moving to Trunk Line or New England territory that it would move precisely as the citrus fruit moves. I do not know how the arrangements are because we might turn over a different proportion at Potomac yard to the B. & O. or the Pennsylvania. From Florida points if it went through the Richmond gateway, having originated on the Coast Line, it would come up the Coast Line to Richmond and the same way with the Seaboard. That would be true of the vege-

table traffic, the same as that that might originate in other sections of the South. I would have to confine my answers to when originating at same point and going to the same destination.

I cannot express any opinion with respect to the divisions of charges. I am giving the statistics. It is a matter for the Commission to decide as to the merits of the statistics and as to what they reflect and considering the various difficulties of operation that we have and all the factors that they would take into consideration in making the divisions. [fol. 1970] My thought is this, so far as statistics are concerned: If you do not apply that to the lines handling the traffic you do not get a true picture of the result, just as I have endeavored and tried throughout the case to point out, that in my opinion, it ought to be confined to the lines that handle the traffic. I do not know anything about weighting the statistics in accordance with the movement over each line. I would not express any opinion upon that. The nine lines that I included handled 85 per cent of the traffic, or, I believe, 95 per cent of the traffic. Those figures are subject to correction but I know they handled a very large proportion of the total traffic. That is why they were selected.

Redirect examination.

By Mr. Gwathmey:

Perishables moving out of Florida move ordinarily under specially arranged schedules via routes over which such schedules are set up. In shortening the schedules, and by the very nature of the commodity, the most expeditious routes must be selected and are used in handling the perishables. I do not know that that would apply to other classes of traffic. The handling of ordinary traffic out of Florida is not as closely held to the lines of the originating carriers, such as the Atlantic Coast Line and the Seaboard Air Line, [fol. 1971] as it is in the case of perishables.

[fols. 1972 & 1972-A] [Caption omitted]

[fol. 1973] In United States District Court

[Title omitted]

Narrative Statement of Evidence Before the Court—Filed June 18, 1935

Colloquy

Judge Soper: There was a preliminary question raised by the answer of the United States in the nature of an exception. In view of the amendment is it still the desire of the United States to except to the sufficiency of the petition?

(It was suggested by counsel for the United States that the motion might not be ruled upon at this time.)

Judge Soper: The Court is of the opinion, tentatively at least, and under the present circumstances, that the motion ought not to be granted. However, we shall not rule on that at this time. If you desire to argue that later, you will have an opportunity.

Mr. Beach: Your Honors, we have already circulated to the parties and have given to the Court in our preliminary brief a complete set of exhibits upon which the question of confiscation principally depends except we expect to supplement that, of course, with operating and accounting testimony along the lines which we indicated in our brief. The petitioners offer the first series of exhibits, 1 to 10; the second series numbered C-1 to C-7 is offered by intervening petitioners and there will be other supplemental and necessarily supporting exhibits to the data that is here presented, compiled for use in connection with these exhibits already [fol. 1974] forwarded.

Judge Soper: May I ask you what is the distinction, if there is one broadly, between these exhibits and the testimony which was offered to the Commission with your second petition for a rehearing in affidavit form?

Mr. Beach: So far as most of the exhibits that you have there before you in the series numbered C-1 to C-10, they are in principle the same as the similar exhibits that were offered to the Commission. We have an additional exhibit there, No. 10, which sub-divides the revenues and expenses

as between the three petitioning carriers, responsive to the amended petition, but we have also offered upon brief to support those figures with testimony of an operating and accounting character and in our petition to the Commission we likewise offered to supply the necessary supporting data and we contend that what we are here offering to the Court as supplementary to these exhibits is what we, in the nature of things, would have offered to the Commission had the Commission granted that petition.

We offer as petitioners' Exhibit No. 1 the transcript of the testimony before the Commission with accompanying exhibits; as Exhibit No. 2 a copy of the proposed report of the Examiner in this case; as Exhibit No. 3 petitioners' first petition for rehearing and reargument; as Exhibit No. [fol. 1975] 4 the second petition of petitioners for rehearing, reconsideration and reargument; as Exhibit No. 5 the order of the Commission entered May 14, 1934, which denies the second petition; as Exhibit No. 6, a certified copy of the stipulation entered into by counsel and a certified copy of the matter that was considered by the Commission pursuant to that stipulation, as Exhibit No. 7.

(Counsel for Interstate Commerce Commission objected to Exhibit No. 2, the Examiner's proposed report, as a mere recommendation of an employee of the Commission to the Commission.)

Judge Soper: The objection is sustained.

Mr. Beach: We offer to prove, as showing the effect of the Commission's decision and also as showing that the divisions which the Commission prescribed for the petitioners in this case are confiscatory and in violation of their constitutional rights, first, Hodkinson's Exhibits 1 to 10 [fol. 1976] which are now before the Court; secondly, Hodkinson's Exhibits C-1 to C-7 which are also before the Court and briefly described on the title page. We have additional exhibits numbered 1-A and C-8 to C-15, inclusive, which support the exhibits already forwarded to the Court and which to some extent partake of the nature of rebuttal and in other respects contain divisional figures and things of that sort, and further analyses of the exhibits which we have previously forwarded. We also offer oral testimony of accounting and operating witnesses supporting these exhibits for the purpose of showing the effect upon petitioners

individually, and in the aggregate, of the prescribed divisions and to support the claim of confiscation.

Mr. Reidy: I, on behalf of the Interstate Commerce Commission, move that no testimony be received in this case other than is contained in the record before the Commission which has been introduced in evidence here.

(Counsel for the United States joined in the objection.)

Judge Soper: The Court is of opinion, gentlemen, that when the issue of confiscation is raised, under the decisions of the Supreme Court of the United States and other courts, it is the duty of the Court to consider the issue and pass its independent judgment on the facts and on the questions of [fol. 1977] law that are involved in the testimony that is offered upon that issue. We understand that in this case there is no objection to any of the evidence that was received before the Commission or which was included in the offer of proof that accompanied the second petition for rehearing, that insofar as the record was made before the Commission, plus the offer in the second petition for rehearing, there is no objection on the part of the defendants here to our considering the bearing of that testimony on the issue of confiscation. We understand further that the defendants, so far as the United States and the Commission are concerned, at least, do object to the taking of any additional testimony. On that point it is the opinion of the Court that testimony may be offered to explain the exhibits that were offered before the Commission and that, in addition to that, additional testimony may be offered along the same lines if it be relevant to the question of confiscation. We reserve, however, to the defendants in this case the right to object to specific portions of evidence that may go outside of that which appeared before the Commission and we will pass on it at the time. Generally speaking, however, I may say on behalf of the Court, that it is our view that the petitioners are to have a reasonable opportunity to explain those exhibits and to buttress them with other relevant evidence along the same lines, and counsel, I am sure, are ad- [fol. 1978] vised of the fact that we think the evidence ought to be specific and as void of repetition as may be consistent with the interests of their clients.

The answers filed by the southern carriers to the first and second petitions for rehearing were received in evidence.

Judge Soper: I didn't want to stop you from explaining, if you want to, why in your view the average cost is exaggerated in Exhibit 1 which Mr. Beach referred to.

Mr. Gwathmey: I will be very glad to state very briefly why we take that position. We take the position, of course, that the burden is on the other side and it is up to them to make a case and not up to us and we take the position that here they are using what they call a system average car mile cost. Now, there are various cost units which the railroad people refer to, sometimes as a car mile and sometimes as a gross ton mile. We take the position that their use of these system average car mile costs is unjustified for various reasons, for one thing, as pointed out by the Commission in this Strawberry case which is cited in my brief, it has a tendency to pyramid the terminal costs. This study which has been submitted here——

Judge Soper: Would you mind explaining that a little [fol. 1979] bit? What do you mean? How does that work *out?*

Mr. Gwathmey: May I read you the exact language of the Commission on that? This is the language of the Commission in the Strawberry case as quoted at page thirty seven of my brief and the criticism they there made of the same cost study which was used here. "That there is no separation of line-haul and terminal costs, the amount of each being reduced to an average per passenger car mile, thus including the terminal as well as the line-haul factor in the average car mile cost. A terminal factor is a constant, independent of and unaffected by the distance a car is handled, whereas a line-haul factor is so affected and therefore a variable quantity. The effect of including both factors in the average car mile cost and applying the latter to hauls of various distances is to make equally variable and thus pyramid the terminal factor." I think that answers your Honor's question.

Judge Soper: Is the average haul of the citrus traffic approximately the average haul of all traffic? Is there any pyramiding of terminal costs?

Mr. Gwathmey: Our accountant has the figures. It is my understanding they are not approximately the average. We will undertake to prove to your Honors that they are not [fol. 1980] approximately the same.

Judge Soper: If they were, would there be pyramiding?

Mr. Gwathmey: I think they would not under those conditions.

GEORGE W. LAMB, called as an adverse witness on behalf of the Petitioners, being first duly sworn, testified as follows:

Examined by Mr. Hall:

My name is George W. Lamb, and I am General Auditor, Atlantic Coast Line Railroad Company; residence, Wilmington, North Carolina. I am reasonably familiar with the proceedings in Docket 23972, entitled R. W. Burch, Inc., et al., against American Express Agency, Inc., et als, before the Interstate Commerce Commission which, for convenience hereafter, will be referred to as the Strawberry Case (190 I. C. C. 520; and 197 I. C. C. 85).

In the Strawberry case I testified for the account of all the carriers in the south. I represented directly the Atlantic Coast Line and the Seaboard Air Line and I was assigned the duty of preparing the defense from an accounting standpoint. The Louisville and Nashville Railroad handles strawberries from Florida only when they are going to C. F. A. territory. It does not originate any strawberries in Florida, as far as I know, but handles them only as a parti- [fol. 1981] cipating carrier when destined to C. F. A. territory.

I am not sure that Mr. Kennedy of the Louisville & Nashville was a member of the Defense Committee in the Strawberry case. I do not believe Mr. Kennedy was represented at all. He did not confer with me or have anything to do with the preparation of my exhibits in that case. The Louisville & Nashville does not handle citrus fruits from Florida to trunk line and New England territory. When we had a conference in connection with the preparation of the rebuttal testimony, the work was parceled out to the Committee. We had numerous meetings of the Accounting Committee and we assigned different sections of the work to different members of the Committee and it so happens that Mr. Ken-

nedy was assigned that particular part which he filled. The Committee was composed of Mr. Kennedy, Mr. Knight, Mr. Tassin and myself.

I introduced in the Strawberry case a series of exhibits numbered 52 to 91. Beginning with Exhibit 56 and succeeding exhibits to 66, inclusive, I showed investment in road and equipment without including any appropriation for materials, supplies and other items, the basic data which was used in my subsequent exhibits. My exhibits 67 and 68 represented my effort to eliminate such items of operating expenses which did not, in my opinion, apply to the express traffic. My Exhibit 69 shows the result of that computation [fol. 1982] of the cost per passenger train per mile for certain items for the year 1929. I apparently testified that my selection of the passenger train car mileage as the unit to estimate the cost of handling strawberries in express service was influenced by the fact that, generally speaking, the operation of passenger train service is not directly affected by weight; the speed of the locomotive greatly controlling the load back of the engine. In other words, in the case of passenger trains there are no tonnage statistics maintained. There is no record of the weight of baggage, mail, or express behind the locomotive. In freight service the unit of measure is ordinarily the gross ton mile. I testified to those and the Commission and the Court have discredited it. I testified that the cost per passenger car train mile is the average of all classes of cars handled in passenger trains. The cost per freight car mile is the average cost per car mile of all cars handled in freight trains but not the proper measure of cost of handling citrus fruit traffic.

I accept my testimony in the Strawberry case in support of my estimated cost formula when I said; "In my opinion about the only way to ascertain the approximate cost of transporting express matter in passenger trains is to develop, as I have done in the exhibit under discussion, the cost per passenger train car mile for operating expenses, [fol. 1983] taxes, and return on investment, and then for each road over which the car is to be handled, multiply the cost per passenger car mile for the several items by the distance hauled over each road," but I did that because that was the one unit for estimating the cost. There are only two ways to develop the approximate cost of transporting

strawberries by passenger trains. One is the car mile, and it requires the most elaborate statistics. I did not have that available for the roads used in this case. I think I used the only available unit, passenger car mile for strawberries carried in passenger trains.

I think citrus fruit is a light loading commodity. That is one of the reasons why your car mile costs in the eastern regions produce maximum costs for the eastern lines and minimum costs for southern lines. Citrus fruit is handled at high speed and, in some cases to make schedules, it is reduced tonnage.

As to the cost of handling citrus fruit on the Atlantic Coast Line and the Seaboard Air Line being greater than the average for all freight traffic, the extent of the gathering service which is performed by the originating lines, and the numerous diversions and expense of getting that traffic to the terminal, to maintain this high speed, causes it to be a very expensive commodity to handle. For example, in dealing with Mr. Hall's question of the expedited service, [fol. 1984] the southern lines when they reduced the time from a fifth morning delivery to a fourth morning delivery absorbed over twenty-one hours of the twenty-four hours, had to reduce their time of getting into Richmond by that twenty-one out of twenty-four hours. That did necessitate the reduction of the tonnage and it increased the cost per ton mile. Taking the traffic as a whole, giving consideration to all of those elements, placing the cars, icing, and all the preliminary service, I think the cost of handling cirtus fruit is greater than the average of the system. That would not be true regardless of the unit—car mile, gross ton mile or what not by which I attempted to estimate the expense. You take, for example, explaining my reason for that, on the Atlantic Coast Line the average loading of a car of citrus fruit is about sixteen tons. On the Pennsylvania Railroad 60.71 per cent of their tonnage is products of mines which load fifty-five tons per car. That illustrates the difference between the loading of citrus fruit products and products of mines. It necessarily costs you more to handle a car loaded with fifty-five tons of products of mines, which is the Pennsylvania's average, than the loading of a car with sixteen tons of citrus fruit. In other words, you have to exert more energy pushing a wheelbarrow loaded with bricks up a hill than you would the empty wheelbar-

row. Energy is power and requires greater expense. That is why the expense is greater. Another reason why it would [fol. 1985] not be comparable with the average of other commodities is the relation of tare weight and net weight. In a car of coal you will have fifty-five tons with approximately twenty-two tons tare weight. In a car of citrus fruit you have, as our averages show, and as the opposition will show, about sixteen tons net and twenty-six tons of tare. An empty refrigerator car weighs more than a coal car. So you would have a disproportion of your traffic there. On the southern lines I should say that it costs more per net ton to handle citrus fruit than most any other commodity. I cannot confine it to citrus fruit because we have other perishables handled on the Atlantic Coast Line and the Seaboard constituting approximately from thirteen to fifteen percent of our total tonnage so that citrus fruit would come in with that class of traffic and I do not want to confine it exclusively to the citrus fruit.

The cost per net ton mile is greater on the southern lines because you must figure in the gross ton miles and the net ton miles of the car. Without attempting to figure it out, I would say the cost on the gross ton basis is greater on the southern lines for handling citrus or perishables than the average of all traffic. Net ton means the loading of the car. That is, if you load fifty tons of coal in a car and carry that ten miles, you have 500 net ton miles. The weight of the car is referred to as the tare weight. Say we had fifty tons of [fol. 1986] coal in the car and, for even figuring, twenty tons was the tare weight, then we would have seventy tons for the car and contents. Multiply that by ten would represent 700 gross ton miles.

By Judge Soper:

I cannot answer the question of whether the cost of citrus fruit traffic over the average cost would be met by the arbitrary allowed in this rate. That is a rate problem. But you must bear in mind not only the actual movement from Jacksonville, Florida, where the car lands, but there is a tremendous gathering service involved in Florida. Over fifty-one percent of citrus fruit traffic originates on branch lines in Florida. This is concentrated at various concentrating points. It is very expensive getting it up to those

concentrating points before it hits the main line where it moves in larger volume.

By Mr. Hall:

I did not make the statement that the operating costs of handling citrus fruit and other perishables on southern lines were in excess of the average on a car mile basis. I said your cost per net ton mile, and nobody, so far as I know, ever worked the cost on the net ton mile basis, not by applying net ton to cost.

[fol. 1987] I had nothing to do with the statement at page thirty of the answer in this case, that "I cited the revenue ton mile basis as indicating that a different result could be accomplished by using a revenue ton mile basis." That is stated in the brief but I had nothing to do with the preparation of that.

By Judge Soper:

Car miles means if you haul a car ten miles it creates ten car miles; in other words, a car mile for every mile it moves. A car mile does not make any distinction between a light or an empty car or a car loaded with fifty tons of coal or sixteen tons of citrus fruit. A car mile is a car mile and it includes empty movement as well as loaded. When you figure on that basis you get the average cost of car miles loaded and empty over your system. Less than carload traffic averages in the United States about 3.6 tons as published by Mr. Turney.

By Mr. Hall:

Mr. Turney is Director of Transportation for Coordinator Eastman. I am not vouching Mr. Turney as authority for some opinion I make. That was in the merchandise report and was broadcast over the country. I could not say that applying the car mile unit of expenses to citrus fruit and the average of all traffic that the car mile expense of [fol. 1988] citrus fruit is greater than the car mile expense of all traffic. I have not worked that out. That involves the extra element of empty cars coming back. My first answer that the cost of handling citrus traffic exceeded the average is based on my general knowledge of the operation of the Atlantic Coast Line. I have no statistical data at all

but I do know from my study that I have made that this traffic is handled on branch lines. I have worked up the density of traffic on some of those lines where the density per mile of road will be less than 100,000 ton miles. Just as illustrating how insignificant that is on a branch line, take the average of the Pennsylvania system from 1929. It is 4,995,000 ton miles per mile of road. I will get back to the southern lines in a minute. This traffic is handled on these branch lines, I know of my own personal knowledge, not from any operating standpoint. At every one of these concentrating points those trains have to be broken up and remade into other trains advancing on to the next northern point. Then we have the placing of those cars.

I know of the trains that Mr. Dixon testified about on the Atlantic Coast Line. I am not in charge of the operating of this road. I made certain studies of the operating efficiency of the Atlantic Coast Line and I am compelled to keep myself informed. I do not have statistical data on the question. I have statistics to support the statement of our [fol. 1989] counsel this morning that the use of system averages greatly overstates the expense of northern lines and understates the expense of southern lines. I will give you some of them. The Atlantic Coast Line handled 3.4 per cent of the total tonnage as representing citrus fruit traffic. Products of mines represented 36 per cent; products of agriculture about 12 per cent. The Pennsylvania Railroad —I can give this from memory, I think—has 60.71 total tonnage represented by products of mines. The average loading of cars is 55.23 tons. When you take a car mile basis of 60 per cent of your total loading of 55 tons plus, you are bound to get a maximum cost on the car mile basis as against gross ton basis, and that reservation applies to the Atlantic Coast Line.

Coming back to Exhibit 69 in the Strawberry case, I showed the expense per car mile there was 17.56 for the Atlantic Coast Line. That is the average cost of carrying any passenger car on the Atlantic Coast Line Railroad. In a passenger train it makes no difference whether it costs more to handle a loaded or empty car because you carry on the passenger train an empty baggage car, Pullmans, express and all classes of cars, and, as I explained in my testimony in that case, I based it on the passenger car mile basis and hauling expenses.

I do not agree that the per car mile expense of handling freight cars loaded or empty is the average of handling [fol. 1990] all cars in freight traffic over the road because your car mile on freight is limited by the tonnage rating of the locomotive. The first exhibit of Hodkinson says it costs 10.5 cents per car mile to handle a car. If you take that car 200 miles we have $21.00. That is the average cost. Now, if we take a car weighing 22 tons and move it 200 miles we have 4,400 ton miles. If you divide your expenses to get your hauling expenses and use an average of three mills per gross ton mile, you would have a cost of $13.20 for handling an empty car. If you load 55 tons of products of mines into that car you would have 77 gross tons. Multiplying that by 200 miles you have 15,400 gross ton miles, and if you multiply that by three mills you get a cost of $46.20 which is three and one-half times the cost of handling the empty car.

Mr. Hall: I will withdraw Mr. Lamb for the time being and recall him later

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[fol. 1991] E. A. Hodkinson, a witness on behalf of the petitioners, being first duly sworn, testified as follows:

Examined by Mr. Beach:

My name is E. A. Hodkinson; I am Commerce Statistician for the Trunk Line Association. I was a witness for the Northern lines in Dockets 24069 and 24161.

My railroad experience along traffic and accounting lines extends over a period of twenty-five years. I entered the service of the Erie Railroad Company in Rochester, New York in the local Freight Agent's office in September, 1906. I was transferred to the general office in the department of the Auditor of traffic in October, 1908. While in that department I occupied the position of rate revision clerk, head clerk in charge of the percentage revision bureau, that is the bureau having charge of the checking of the divisions applied in the settlement of the interline accounts between railroads; traveling auditor, and for the last seven years of my service with the Erie Railroad I was Chief Clerk to the Auditor of Freight Accounts in charge of the overcharge claim bureau and the miscellaneous accounts bureau. In March, 1920, I entered into business on my

own account as a traffic consultant, and continued until January, 1928, in that capacity. During that time I handled numerous cases before the Interstate Commerce Commission and had occasion to make quite a number of expense and cost studies. I have held my present position [fol. 1992] since January, 1928, and the major portion of my time has been devoted to the preparation of accounting, statistical and other exhibits for presentation before the Commission in formal cases.

The Trunk Line Association is an association of fifteen carriers known as Trunk Line carriers. The Trunk Line carriers, generally speaking, are carriers whose lines extend from the Seaboard to the Buffalo, Pittsburgh, and Erie, Pennsylvania, territory. The members of that association are The Chesapeake & Ohio, the Central Railroad of New Jersey, The Delaware, Lackawanna & Western, The Delaware & Hudson, the Erie Railroad, the Lehigh Valley Railroad, the Lehigh & New England Railroad, the New York, O. & W. Railroad, the New York Central Railroad, Pennsylvania Railroad, The Reading Railroad, the Western Maryland Railroad, and The Virginian Railroad, The Baltimore & Ohio Railroad and The Norfolk & Western Railroad. I am testifying in this proceeding for all the carriers serving what is known as Official Classification Territory. I am generally familiar with the issues here. I have had prepared under my personal supervision certain exhibits with explanatory data accompanying each. In the preparation of those exhibits statistics for the year 1929 were used because the traffic study that we had in the proceeding before the Interstate Commerce Commission covered the season's movement for 1928, extending through [fol. 1993] to 1929. I thought it would be highly improper to use statistics for subsequent years to a previous year's movement of traffic. Those statistics which I have used are all on file in the reports of the carriers to the Interstate Commerce Commission.

It is not possible by the use of available statistics to determine precisely the cost of handling any one commodity in freight service. In my opinion it is possible to determine the average cost per car mile for carrying the average car one mile on any individual Class One road. A Class One road is a carrier whose income exceeds a million dollars a year.

By Judge Soper:

It is not possible to establish the cost of handling a particular commodity because that would enter into the realm of speculation. There are so many accounts and so many expenses incurred not with reference to any particular commodity that it would be impossible to make any more than an approximation of the expenses which should be eliminated from the total operating expenses to bring about an actual determination of the cost of transporting any particular commodity. The Commission itself has found in numerous instances that it is not possible to state the expense for any particular commodity.

[fol. 1994] By Mr. Beach:

I have stated that it is reasonably possible to estimate the expenses to a particular road of handling what might be called an average car in freight service one mile. That may be done by different bases or units. The determination of the expense per car mile is one basis. In arriving at a unit cost for determining an average cost per car you could use various units. I have used in my study the total freight car mile basis.

By Judge Soper:

You take into consideration the return of the empty car on both the car mile basis and the gross ton basis. The total freight car miles are obtained by multiplying the distance the car is hauled by the number of cars. Also we take into consideration the empty return haul, so that if you have one car that is hauled 100 miles you have 100 miles loaded. Assuming that the ratio of the loaded to the empty movement is fifty percent, we would have fifty miles empty movement, or total car miles of 150. That takes in hauling the loaded car 100 miles and hauling the empty car fifty miles. Total car miles means the distance the car goes irrespective of whether it is loaded or empty. The total car miles as shown on my Exhibit No. 1 represent the total car miles for both loaded and empty movements. Dividing these total car miles into the operating expenses gives you [fol. 1995] the average cost per total car mile. The gross ton mile basis is obtained by dividing the total gross ton miles into the operating expense. That takes into consider-

ation the return of the empty car because in computing the gross ton miles you take into consideration the empty haul and the weight of the car.

By Judge Chesnut:

In the case of the car mile unit you estimate the cost by the cost of hauling a car one mile, irrespective of what the car contains. In both the car mile and gross ton mile bases we take into consideration the car loaded, and the empty haul on the equipment. Gross ton miles are obtained by multiplying the weight of the car and the load by the distance hauled and then multiplying the weight of the car itself by the distance hauled empty. In one case I am giving what it costs the B. & O. Railroad to carry the car one mile; in the other case what it costs the B. & O. Railroad to haul a ton, whether gross or net, a mile. The gross ton miles will not really take into consideration the load in the car. Your ton mile expense remains the same regardless of the weight that you have in the car. We determine the expense of hauling a ton of freight. If I could give you an illustration, maybe it will clear it up. One ton of freight transported 200 miles produces 200 revenue ton miles. If the [fol. 1996] rate is $2.00, dividing your revenue ton miles into your revenue of $2.00 produces a ton mile revenue of one cent per mile. If you put a thousand tons in that car, if it were possible, and transport it for 200 miles at a $2.00 rate you have 200,000 revenue ton miles and $2,000 revenue, and divide the $2,000 revenue into the 200,000 revenue ton miles you will still have one cent per ton mile. So that the ton mile is not influenced by the weight in the car. It remains stationary, regardless. Determination of the use of the total car mile basis in this particular case was reached by a committee of the accounting officers and operating officers representing the northern lines, at which I was present and a member.

By Mr. Beach:

Before determining to use the car mile basis I went all through the Interstate Commerce Commission decisions and reviewed everything they had said relative to the use of car mile and ton mile statistics. We found that in many cases the Commission had expressed the view that car mile statistics were more reliable than ton miles; in fact, in one case the Commission went so far as to say that it was im-

practicable and of doubtful accuracy to make a further refinement of the cost beyond the car mile unit. As I said, ton mile statistics do not reflect the carloading or train mileage, or train tonnage. After all is said and done, the car-[fol. 1997] riers are particularly interested in the amount of revenue they are going to receive per car, and since we are concerned with the revenue per car, then it becomes necessary to my mind in measuring expenses against the car revenue, we should use a per car unit. We also took into consideration the average haul of citrus fruit. One of the main objections that has been directed against the system averages as a comparison of revenue on a particular commodity is that in most instances the average haul which is reflected in that average system unit is less in many cases or in a majority of cases than the haul on the particular commodity. That was the situation in the Strawberry case. The average haul of the Atlantic Coast Line for 1929 on all traffic was 173.16 miles but its haul on strawberries was very much in excess of that. We found in weighting the hauls north of Potomac Yards and also weighting by the R., F. & P. that they came so close to the average haul that it fully justified us, to my mind and in the opinion of my associates on the Committee, in the use of the average car mile unit for the determination of the expenses both North and South. Wherever the average haul on a particular commodity exceeds the average haul on which the system average is predicated, then the question of terminal expenses enters into the picture. It is well known that relatively and actually the expense of hauling a car or the expense attached to whatever unit may be selected is greater for shorter hauls than for long hauls. That [fol. 1998] is because of the terminal situation. That meant we were using exactly and precisely the same yardstick for both sets of carriers. And still bearing in mind the fact that the average haul on citrus fruit on the Atlantic Coast Line and Seaboard Air Line was approximately 853 miles, that we were more than fair to them in using their system averages based on much shorter average hauls; in fact, generally speaking, just four times the average haul. As I said before, the Coast Line average haul was 173.16 and that of the Seaboard Air Line was 192.74 miles. In both instances the weighted haul on citrus fruit was four times the average haul.

By Judge Soper:

The average citrus fruit haul is found for the two southern lines by the Commission in its report to be 833 miles. The average haul on all traffic for the Atlantic Coast Line for the same year, 1929, was 173.16 and for the Seaboard Air Line 192.74. Based on our system, so far as the Southern roads were concerned, the use of this car mile basis was not fair to the Southern roads for the same reason as shown in another case. The situation, as I understand it, with the southern roads in the use of this car mile basis presented this very point of criticism. I used that system there although it was greatly to their advantage because it was the best system we had. On the northern roads the average haul of citrus fruit on the Baltimore & Ohio Rail-[fol. 1999] road was 112.81 miles. On all traffic it was 190.22 miles. On the Pennsylvania Railroad the average haul on citrus fruit was 220.75 and on all freight it was 206.28 miles.

The difference between the average haul and the weighted haul is this: Assume you have cars going to two destinations. You have two cars that will move fifty miles and two cars that will move 100 miles. The sum total haul is 300 miles. That, divided by four, gives 75 miles. That is the weighted haul. It does not mean the average distance the car goes. In one case it is the average distance and in the other it is weighted because of the fact that you have a longer haul in some instances than in others. I want to make this plain to your Honors if I may. You have two cars going fifty miles and three cars going 100 miles. You have two movements. The sum of 50 and 100 is 150. Dividing by two you have the average haul of 75 miles. The two cars going 50 miles produce 100 car miles. The three cars going 100 miles produce 300 car miles, a total of 400. You divide the 400 by the five cars and you get the weighted haul of 80 miles.

By Judge Chesnut:

You would want to get it because that gives the weight and the various distances that the cars are transported. When I said weighted haul I, of course, meant weighted average haul.

[fol. 2000] By Mr. Beach:

A while ago I gave the average haul on the Pennsylvania of citrus fruit as two hundred and twenty and a fraction miles. That was figured on all the cars involving single line hauls for Pennsylvania deliveries, whether they originated on the Atlantic Coast Line or Seaboard Air Line or on the Florida East Coast. It is the average haul on 17,324 cars. It did not take into account any movements that the Pennsylvania might have had as an intermediate carrier.

I fully agree with Mr. Lamb's statement that citrus fruit is actually and relatively a light loading commodity. The average load of citrus fruit on those 17,324 cars was 16.17 tons, and that embraced all of the cars which were carried by that particular system whether they originated on the Seaboard Air Line or the Atlantic Coast Line, and those were the average tons per car of citrus fruit. For the B. & O., the P. R. R., the R., F. & P., the Seaboard Air Line and Atlantic Coast Line it would be 16.17 tons. The relatively loading of citrus fruit had a bearing upon the problem when I came to selecting the total car mile basis, because the Commission and traffic men have always taken the position that when it comes to measuring the reasonableness of the rate, the ton mile earnings will not begin to be as reliable a guide as the car mile basis, especially when it comes to light loading commodities.

[fol. 2001] As I said previously, we are interested in the per car revenue and since we are interested in the per car revenue it is necessary to go to the per car unit in computing the expenses. I have shown your Honors just how the ton mile unit remains stationary regardless of the weight of the car. If we take a car containing ten tons 200 miles at a $2.00 rate that would produce $20.00 per car revenue. Divide that by 200 would produce ten cents per car mile revenue. Now, if there are forty tons in that same car moving that same distance at the same rate, the per car revenue would be eighty dollars and that would be forty cents per car mile so that the per car mile is directly affected by the weight in the car, whereas the ton mile unit is not. In the preparation of my studies and the average cost units which I developed, I did not include anything for equipment and joint facility rents.

In principle the formula in this case is the same as that followed in the Strawberry case since both used the per car-mile expense unit.

Judge Chesnut: Who were the contending parties in the Strawberry case?

Mr. Beach: It was the American Railway Express Company and the southern lines against the United States. The contention was that the rates prescribed by the Commission [fol. 2002] barely exceeded the cost of service and, in some instances, did not cover the cost of service. The Atlantic Coast Line was interested in it as one of the participants in the haul of strawberries from Florida and other points in the south. They operated the Express Agency cars.

Judge Chesnut: I understand it is your contention that the Atlantic Coast Line in that case undertook to prove that the rate allowed them by the Commission was unreasonably low, by establishing the cost to them on the basis of the system unit passenger car mile?

Mr. Beach: Yes, sir, and we are here using the system freight car mile and I would like to ask Mr. Hodkinson to what extent the facts in this case are different from the facts in the Strawberry case so far as the application of that formula is concerned.

Witness: The Strawberry case you have stated covered the rate on strawberries moving by express from points in Florida to points throughout official classification territory. Mr. Lamb was the accounting witness representing the southern carriers and he worked up certain statistics showing the expense of transporting strawberries from Florida to final destination. He obtained those expenses by the use of the system average figure per passenger train mile for each of the roads involved in the transportation. He com- [fol. 2003] puted the miles which each carrier transported the car in the through service and multiplied those miles by his unit expenses and then assembled the figures for all of the lines that were interested in the transportation and got one final figure. In this particular instance we are dealing not with a through rate, but with divisions of a through rate. The contesting parties, the northern carriers, on the one hand, and the southern carriers on the other are seeking a fair division north and south through Richmond and var-

ious other gateways. So that I believe in using exactly the same unit in determining the expenses of both the northern and the southern lines, in view of the fact that our figures reflect our average haul or substantially so, and the figures for the south are for hauls very much in excess of their average haul on which the unit figure is computed, that we are dealing fairly with the south and certainly as far as the B. & O. is concerned, with an average haul on citrus fruits which is less than the average haul on all traffic, we are understating the expense to the B. & O. and because of the influence of the terminal situation on the shorter hauls we are, if anything, over-stating the expenses of the southern lines.

By Mr. Beach:

While I have used the so-called Lamb formula in estimating the cost here, I have endeavored to take into account the criticisms which the Commission made of that formula in [fol. 2004] the Strawberry case. I shall endeavor to show later, after the exhibits have been introduced, that those criticisms are not applicable to the facts in this case. As I say, this is a totally different proposition from the Strawberry case where the Commission had a through rate under consideration and the situation in this case where the question is one involving divisions.

The average unit figure which I have used is on the total car mile basis which, as I have previously stated, is produced by dividing the total miles, both loaded and empty, into the operating expenses. That strikes the average figure and there is much to be said, that no one can determine with any degree of accuracy just how much more it costs to haul a loaded car than an empty car, but in reaching those figures, if there is any difference, in striking this average figure we have perhaps overstated the expense of hauling the empty car and understated the expense of hauling the loaded car, but since we are striking an average, the one, to my mind, will offset the other. The predominant unit in the total car mile will be loaded. As far as the effect of including in a single unit both loaded and empties, I think the fact that we are using the average that underestimating in one case will be offset by what might be an overestimate in the other but I am not prepared to admit that there is [fol. 2005] any particular difference in the expense.

By Judge Soper:

That comment was made in the Strawberry case in the affidavit of Mr. Lamb. In the answer of Mr. Lamb he used two pages to justify the use of the same unit of expense for the loaded car as the empty car. The criticism of Mr. Lamb's speech on that subject was that the Court dismissed the case. I can't recall that the Commission said it did affect it.

Mr. Beach: Your Honor, that statement by Mr. Lamb was made in an affidavit which was filed before the Federal Court, the Three-Judge Court in New York, and it did not go into the affidavit for the reason that it stated that these were properly matters that might have been referred to the Commission.

By Mr. Beach:

I have no opinion on the subject as to whether the cost of hauling empties is materially less than the cost of hauling loaded cars, but I understand one of the operating witnesses will be prepared to discuss that matter and show that insofar as the return empty movement of the refrigerator cars is concerned that that is an expedited service, especially during the height of the shipping season.

[fol. 2006] By Judge Chesnut:

My answer to the Commission's criticism in the Strawberry case of the speculative feature as bearing on the reasonableness of the rate resulting from the fact that so many or such a high percentage of empties prevailed in the strawberry carriage is that I have struck an average figure. In arriving at that average I have taken the loaded cars into consideration and empty cars into consideration. If [fol. 2007] there be any difference in the expense of hauling loaded as compared with an empty car, I have to that extent in using an average figure underestimated the cost of hauling a loaded car and have overestimated the cost of hauling an empty car but the one would, as I see it, offset the other and in arriving at this expense, your Honor, I want to point out that the ratio of empty mileage is about ninety percent. As I have pointed out, our loaded haul is in the neighborhood of 220 miles, R., F. & P. 110 miles, so that our figures only take into consideration the empty re-

turn haul on the same rate or unit as the loaded haul for a very much shorter distance than that of the Atlantic Coast Line and the Seaboard Air Line and we give them the benefit of applying to the empty movement exactly the same unit that we apply to the loaded movement, exactly the same yardstick on both sides.

By Judge Soper:

I would say the excessive amount of empty car traffic makes the traffic less expensive than average traffic. If for every 100 miles of citrus fruit loaded car there were ninety miles of empty, and for every hundred miles of average commodity there were fifty miles of empty, the cost would be more per mile, so far as that factor is concerned, for the average traffic than for the citrus fruit traffic.

[fol. 2008] By Mr. Beach:

You would, however, have more miles, in the case of the citrus car than in the case of the average, and you would, in considering the whole amount, be hauling more dead or tare weight compared with your load than in the case of average haul traffic because of the fact that the tare weight of the car that would be used in the transportation of citrus fruit is 26½ tons while the average of all cars is somewhere in the neighborhood of 22 tons. If there were any difference in the respective costs the loaded car expense would be understated and the empty car overstated, but using an average one hand would wash the other.

Second Day—Morning Session

Baltimore, Maryland, September 18, 1934.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

E. A. Hodkinson resumed the stand for further direct examination:

Examined by Mr. Beach:

[fol. 2009] As we adjourned last evening I was about to take up my series of exhibits numbered 1 to 10. These ex-

hibits were prepared by me or under my direction. They are true and correct to the best of my knowledge and belief. I likewise actively participated in the preparation of the appended explanations which precede these exhibits. The facts therein stated are largely based upon the exhibits which follow and are true and correct to the best of my knowledge and belief.

My Exhibit No. 1 contains not only the basic information from which I get my unit expense or cost for the individual lines but it also shows the unit expense itself. In Exhibit No. 1, dealing with the Baltimore & Ohio Railroad which is the first road named in the exhibit, it shows investment in road and equipment, accounts 701 and 702, $894,281,621. That is the Baltimore & Ohio's book investment in road and equipment and it does not include any allowance for materials and supplies or cash.

Next line, investment in road and equipment, freight proportion, is shown as $606,501,795. That amount is obtained by applying the percentage shown on line 5-H of 67.82 per cent to the investment in road and equipment shown on line 1. When we come to the 5¾ per cent investment assignable to freight, that is obtained by the use of the Commission formula for the separation of freight and passenger [fol. 2010] expense. Just as appears on the face of the exhibit, the property investment is divided between passenger and freight on the basis of the freight operating expenses.

By Judge Soper:

I have $894,000,00-, approximately, as the total investment in road and equipment. The freight proportion of that is $606,000,000. I segregate the freight proportion from the total on the basis of the operating expenses, and I might deal with the operating expenses before coming back to line 2. The total operating expenses were $180,570,034. The freight proportion of that was 78.22 per cent, and the passenger proportion 21.78 per cent. Those two per cents are obtained by the application of the Commission's formula for the separation of expenses as between freight on the one hand and passenger on the other. Now, instead of applying the 78.22 per cent to the investment in road and equipment, we have to make some further deductions from operating expenses. And we have made the deductions of ac-

counts 314, 315 and 316. That is freight train car repairs freight train car depreciation and freight train car retirements, with the total deduction of $18,788,900.

By Mr. Beach:

Those deductions were made because of the fact that as to citrus freight traffic the movement is entirely in or prac- [fol. 2011] tically in its entirety in refrigerator cars of private ownership. And the repairs to those cars and the replacements of those cars and the depreciation as to those cars are taken care of by the owners, the railroads paying the owners of the cars two cents per mile, both loaded and empty, in accordance with tariffs on file with the Interstate Commerce Commission. Now, having determined the amount of the deductions, we have a net operating expense assignable to freight of $122,461,644. That is shown on line 5-G. And it represents the difference between line 5-A, $141,250,564 and $18,788,900. We next determine that this $122,461,664 represents 67.82 percent of the total operating expenses. And to determine the 5¾ percent of investment assignable to freight we apply that 67.82 percent to the investment in road and equipment, item 1, which results in a figure of $606,501,795. Opposite line 5-A I have the words, "percentage 5-G as 4." That is the percentage which line 5-G is of line 4. Capital investment is divided between freight and passenger traffic in the proportion of the operating expenses of the freight and passenger departments. That is the basis which I have ordinarily used and it has been used by other people. There is another method, of course, of apportioning the investment as between the two services.

By Judge Chesnut:

The Commission has set up a formula for the separation [fol. 2012] of expenses as between the freight and passenger business. The only relation there between operating expenses and capital investment is that it affords a method of apportioning the investment as between the two services.

By Judge Soper:

It would not perhaps follow logically, if you find out that the operating freight expenses are 67 per cent of the whole operating expenses that, the investment devoted to freight

movement is 67 per cent of the whole, but it affords a fairly accurate method of separating the investment as between the two services. There are so many facilities that are common to both—terminal facilities, tracks, the same clerical forces and station forces and all that thing that are common to the two services. This formula that I use is generally approved by railroad people. Mr. Lamb has used exactly the same method of proportioning the capital investment as between the freight and passenger business in the Strawberry case. It has been recognized and approved by the Commission.

By Mr. Beach:

I cannot recall that the Commission has ever prescribed the use of such a formula. They have not condemned it, to my knowledge. I mean that it has been used in cases before the Commission and that the Commission has not criticised it.

[fol. 2013] By Judge Chesnut:

The separation could be made on a revenue basis as between the two services. But this is a case involving expenses and it seems more appropriate to make the separation on the expense basis rather than on the revenue basis. I think that the expense basis is more appropriate to use in this particular case.

By Judge Way:

It is a formula that has been used to a very large extent before the Commission. I cannot recall that the Commission has ever placed the stamp of approval upon it. Neither can I recall that they ever very seriously criticised it.

By Judge Soper:

I have no further explanation to offer in connection with that unless there is some doubt in your mind that I may be able to clear up. This formula has been very generally accepted, particularly by the eastern carriers. This method has been employed by the eastern carriers throughout this particular proceeding, and Professor Cunningham of Harvard University prepared a very elaborate exhibit dealing with the investment in road and equipment, and he used the

passenger and freight expense ratios, respectively, to separate the capital investment between the two services. He was employed by the eastern railroads as an outside ex- [fol. 2014] pert. I cannot recall that the southern carriers have put in exhibits dealing with property investment to make any separation as between freight and passenger services, but they did do it in the Strawberry case on the same basis and that is on the expense basis.

By Mr. Hall:

I do not think that Mr. Kennedy, an expert for the other side, dealt with investment at all in an exhibit on the basis of a gross mile as contrasted with my exhibit on a car mile formula. I think he dealt with the expenses. He shows no return whatsoever or makes no reference to total investment.

Judge Chesnut: I can understand how you can take your total plant investment and calculate that you want to receive on that, say 5¾ per cent as a fair return, and then you take your total actual return and divide that between passenger and freight, in proportion to some fixed factor in relation to the two operating expenses of the two, if you please, and keep them separated.

Mr. Hall: If I may be permitted to explain to the best of my ability, I will only take a minute. I think the Court may have become slightly confused. I think Mr. Hodkinson will agree with me in saying that so far as the division [fol. 2015] of property investment is concerned there has been no prescribed formula by the Interstate Commerce Commission such as they have prescribed for the division of operating expenses. So we start with no prescribed formula by the Commission. The two, and practically the only two bases that there are known for allocating or dividing investment is on the basis of expenses and on the basis of revenues; and it is generally conceded that where you are considering the question of expenses, the division should be made on the basis of expenses, and if you are considering the question of revenue the division should be made on the basis of revenues. Now, in this case Professor Cunningham introduced a very voluminous exhibit, dividing the expenses south and north, and used the expense basis. That was criticised by the southern lines, I believe, and a similar exhibit or revision was made of that exhibit

on the revenue basis; and we then re-worked all of the figures, generally speaking, on a revenue basis; so that the record contains as to the north and south generally computations on the two bases. Now, it is a matter of opinion between experts as to which is a proper basis to use in connection with determining the expenses.

Judge Chesnut: Well, what do the two methods produce in the way of comparable results?

[fol. 2016] Mr. Hall: I could not say offhand without getting down to a specific case, your Honor.

Judge Soper: Take the case of the Baltimore and Ohio, worked out here on a percentage of 67.82, as I understand it. Now, if you had used the revenue basis instead of the expense basis, would the percentage have been greater or less than 67.82?

Mr. Hall: Subject to correction from my friends on the other side, it is my belief that there would be very little difference in the result when the division was made on a revenue basis as compared with an expense basis.

Judge Soper: May we ask for some statement on that? If the matter is really not within the field of controversy, we might as well know it. What is the attitude of the defendants in this case as to this method of approximating the value of the freight equipment and investment?

Mr. Gwathmey: We take very definite issue with the petitioners on that point, and will endeavor to prove at the proper time that their method of proportioning investment is one of the inherent defects in their cost calculation.

By Mr. Beach:

Line 6 of my exhibit dealing with railway taxes shows $11,965,798. Line 7, the railway taxes assignable to freight [fol. 2017] $8,115,204 and that is 67.82 per cent of line 6. Line 8, total freight car miles, excluding caboose, that is 1,159,267,000. Line 9, operating expenses per freight car mile, represents line 5-G divided by line 8; and that shows the figure of 10.56372 cents per total freight car mile.

The total freight car miles include all of the car mileage, both loaded and empty, heavy cars, light cars, local shipments, shipments originating on the line for delivery to connecting lines, shipments originating on connecting lines and delivered on the line of the B. & O., and shipments handled overhead, that is, shipments originating beyond the line of

the B. & O. and being transported by the B. & O. as an intermediate carrier, and delivered to some other carrier for final delivery.

By Judge Way:

We have made the separation of taxes assigned to freight operation and the proportion assigned to passenger operation on the freight expense basis. The major portion of those taxes are property taxes, license taxes, income taxes —all taxes.

By Judge Soper:

The figure of operating expenses, No. 9, is 10.56 cents per total freight car mile. That figure is not arrived at in any way by the use of this percentage. It does not enter [fol. 2018] into it. It enters into the taxes to the extent of determining the amount of taxes which are to be divided by the total of the car miles and the same way with the investment assignable to freight. I have not worked out the Pennsylvania Railroad's return per car mile in revenue. It is not my claim that our operating expenses per mile alone exceed our revenues per car mile but the operating expenses and taxes per car mile exceed the revenues per car mile.

By Judge Chesnut:

These figures on this sheet are not citrus fruit but are the average car mile expense on all traffic. I am proceeding on the theory that the citrus fruit expense is just as much as this average.

By Judge Soper:

My whole theory is on the assumption that this represents at least the operating expenses on fruit.

Q. What I was trying to get you to tell me was if you get 10.95 from the Pennsylvania, representing the total operating expenses per mile, exclusive of income taxes and everything else, what is your revenue per car mile, if you have got it?

A. Well, we are not relying on a car mile unit revenue alone, your Honor. Our point is that our principal interest is in the total revenue per car.

[fol. 2019] Mr. Beach: We are not using the car mile unit to determine revenue. We are using that unit to determine the per car expense. We are going to contrast individual hauls by showing what revenue we get per car and the expense per car, using these particular units. We can, of course, compute on individual shipments what the per car mile revenue is, but that, as we compute it, would be the revenue for the loaded haul and it could be computed also by taking your average empty return movement, but it would show relatively the same things as will be shown in subsequent exhibits where we put side by side the revenue and the expenses.

By Judge Chesnut:

On line 9 I reach this average car mile expense of 10.56 cents as expense of operating a freight car one mile. That figure is not directly affected by the ratio of 67.82 on which I separate capital and investment between freight and passenger, but it happens to determine this figure we use, the net operating expense of $122,000,000 which happens to be 67.82 of the total operating expenses assignable to freight. I get the 10.56 cents by dividing 122,000,000 in line 5-G by the total freight car miles of 1,159,000,000. The 10.56 is directly dependent upon the correctness of line 5-G, 122,000,000. That 122,000,000 is obtained by deducting from the total operating expenses assignable to freight the [fol. 2020] freight train car repairs, the freight train car depreciation and the freight train car retirements, the total of which is shown on line F.

By Judge Soper:

The figure of 122,000,000 is dependent upon the Commission's formula of dividing the total freight operating expenses and passenger, that is 78 and 21 per cent. Then in order to bring that down to the citrus fruit I make these deductions in line 5-C, D and E, and the 67.82 per cent is the result that I get after I have made those deductions. And the figure that I have to use to determine the investment in road and equipment and the amount of taxes which should be assignable to freight.

Q. I do not understand that there is a dispute from the defendants in this case, or any denial that it is proper to

divide the total operating expenses, freight and passenger on the basis of 78 and 21 per cent. Is there any dispute as to that formula?

A. That is not an exact formula, your Honor.

Those figures that I have used had the Commission's approval as to the separation of the two expenses, but that would vary with each road. It so happens for the B. & O. that is the percentage.

Mr. Gwathmey: Answering his honor, Judge Soper's [fol. 2021] question, we do dispute the 67.82 which is the one about which I understand you are asking.

Judge Soper: I am not asking about that. Take the B. & O. column, lines 5-G and 5-H, which shows the difference between freight operating expense and passenger operating expense, and you divide it and get the result in per centage of 78 for the freight and 21 per cent for the passenger. I am asking whether or not those figures are disputed.

Mr. Gwathmey: Yes, sir.

Judge Soper: Well, getting out into your own territory, for instance, the Atlantic Coast Line and the Seaboard Air Line, do you dispute the percentage in those columns?

Mr. Gwathmey: Yes, sir.

Judge Soper: What is the matter with them generally?

Mr. Gwathmey: Your Honor, I am awfully sorry, but I cannot answer as to the technical objections to those figures. We have one of our expert accountants to make that response.

Judge Soper: Well, do you not know what the correct figures are?

Mr. Gwathmey: No, sir.

[fol. 2022] Judge Soper: All right.

Mr. Hall: Your Honor, I am more venturesome than my friend on the other side; and I can assure you that this figure of 78.22 and 21.78 for the Baltimore and Ohio, and 67.95 and 32.05 for the Atlantic Coast Line are divided in accordance with a prescribed Commission formula, as to the general validity of which, while the railroads have accepted it over a number of years, as I understand it was prescribed in 1920, they still do not admit that it is technically accurate or correct; but it is used, and we have to use it, and it is the only basis that is known at the present

time used in any of these cases for dividing operating expenses between passenger and freight.

Judge Soper: Well, is it the formula which the Commission has accepted?

Mr. Hall: Yes, it is the formula which the Commission has accepted, and not only accepted but prescribed and requires the carriers to separate their operating expenses on that basis, and has since 1920.

The Witness: Those figures, your Honor, are taken from the reports that carriers filed with the Commission.

Answering Mr. Gwathmey, I have in front of me a copy of Mr. Lamb's exhibit No. 56 and if you will refer to my [fol. 2023] sheet covering the Atlantic Coast Line you will see he uses exactly the same amount of operating expenses, $53,431,588.81. If we accept those figures as correct, going back to the Baltimore and Ohio with its 78.22 and 21.78 per cent representing the proper percentage of freight and passenger operating expenses, then it is by the use of those figures that we finally get what I have in line 9. The other formula by which the investment was divided between freight and passenger affects the calculations in lines 10 and 11 to the extent that I have used the 67.82 per cent to determine the amount into which the total freight car miles shall be divided to produce those figures. Line 9 has nothing to do with investment. It is absolutely independent of the theory as to the separation of the capital investment. Lines 10 and 11 do depend upon the separation.

By Mr. Beach:

Those unit expenses shown in lines 9, 10 and 11 are used in subsequent exhibits as the figures by which we compute the total expenses per car.

Exhibit No. 2: There are two errors in transposition in figures made in the explanatory statement preceding Exhibit 2. On line 2 when I show 24,120 cars that should read 21,420. In the second paragraph, on line 9, I also show 24,120 cars. That should read 21,420 cars.

This exhibit is a traffic study based on the shipments [fol. 2024] moved in the '28-'29 shipping season, and compiled generally from the exhibit which was filed by the southern lines in this case. It shows in detail the shipments originating on the Atlantic Coast Line, the Seaboard Air

Line and the Florida East Coast Railroads, moving to points in Trunk Line Territory on the lines of the Pennsylvania and the Baltimore & Ohio Railroad where only a single line haul is involved north of those gateways.

Those 21,420 cars of citrus fruit, or substantially all of them, were delivered by the Baltimore and Ohio and the Pennsylvania in the 1928-'29 season as to Trunk Line Territory. The R. F. & P. is in here as an intermediate carrier of all the shipments north of Richmond. The course of the shipments was via Richmond and Potomac Yards.

This exhibit, consisting of 62 pages, is a traffic study by individual hauls and in the aggregate of all cars delivered by the B. & O. or the Pennsylvania Railroad in the 1928-29 season, originating on the three southern routes, Atlantic Coast Line, Seaboard Air Line and Florida East Coast. This entire exhibit is the result of a traffic study and we drew off the shipments, all the shipments originating on the Atlantic Coast Line having the destination Altoona, Pennsylvania. The statement shows the origin at Auburndale, Florida. The tariff naming the rates on these shipments does not always carry rates from point to point, [fol. 2025] and so we have what are known as base points. So the first thing to do was to refer to the tariff to find out just what the rate would be and just what base point the particular origin or destination takes. By that I mean that there are perhaps 20 or 30 origins in Florida which it may be said are grouped at the same rates to a particular destination, and the destinations are also grouped the same way. You will find 20 or more stations within that group. The weight of the car in question was 32,400 pounds. This one car originated at Auburndale, destined to Altoona. The charges were $336.96. The rate and the charges and the revenue north of Richmond, as settled, are all taken from the southern lines' exhibits. The arbitrary revenue was determined from the arbitraries which are named in a division sheet which was published jointly by the northern and southern lines, so that there is no dispute as to the amount of the arbitrary which is to be deducted before prorating. The arbitrary is a special allowance which the Commission made the Florida lines to take care in part of their gathering charges. The arbitrary revenue is six cents per 100 pounds, which is $19.44; and that is obtained by multiplying the weight of 32,400 pounds by six cents per

100 pounds. That arbitrary revenue is deducted from the charges, and the net revenue of $317.52 represents the charges of $336.96 less the arbitrary revenue of $19.44. [fol. 2026] The distance south is 790 miles, and the distance north is 358 miles. The application of the divisional factors prescribed by the Commission for those respective distances results in a per cent of 24 north and 76 south. The 24 per cent north represents 24 per cent of the net revenue, $317.52. The revenue south represents 76 per cent of $317.52, plus the $19.44 per car.

By Judge Soper:

Altoona, Pennsylvania, is shown as 358 miles from Richmond on the top of page 1 of the exhibit, and the miles from Auburndale to Richmond are shown on the column "Southern miles," total car miles, as 790. That 790 miles is from Auburndale, Florida, to Richmond, Virginia.

By Judge Chesnut:

Not all of the rates shown in this statement are still in effect. The emergency rates have been published on a somewhat lower basis to meet water and truck competition.

Mr. Beach: I understand those emergency rates have expired and the Commission's prescribed basis is now in the entire territory.

By Judge Chesnut:

The Florida arbitrary does not enter into consideration at all insofar as the determination of the percents are con- [fol. 2027] cerned. The last column on this first line showing 260.76 is 76 per cent of 317 plus the arbitrary. I have added the arbitrary to the 76 per cent of 317. I do that because the Commission ordered it, your Honor.

Judge Chesnut: I understand, but what help does it give us to give 260 instead of 76 per cent of 317?

Mr. Beach: Because that is the amount of revenue that the carrier south gets under the Commission's decision. The Commission prescribes the division and it says, "Before you divide this joint through rate you deduct so much and then divide the balance." Regardless of what formula you use, in effect, when you divide that rate you have so much money on the one side and so much on the other.

These mileages are actually the point of origin to final point of destination and divided north and south at Richmond.

Judge Chesnut: It appears somewhere in the Commission's order that the northern roads are getting 1 in proportion to the southern roads' 1.77.

Mr. Beach: Yes, sir.

Judge Chesnut: Is this arbitrary included in the calculation of that 1.77?

Mr. Beach: No, sir; that arbitrary or that relationship is the relationship of the two scales of factors which the [fol. 2028] Commission itself set up there, and the arbitrary is in addition to that ratio which the Commission set up.

Judge Chesnut: That is what I thought, that this table as prepared here has no direct relationship to that 1.77, and it does not help us to work that out. That is an entirely different calculation on a different theory.

Mr. Beach: No, this would have no relation to that because the arbitrary revenue is included in each case.

By Mr. Beach:

As to each shipment to each northern destination I have done the same thing as I have explained with respect to Auburndale to Altoona, and then I show, for example, all the shipments that move from these Florida points on the Atlantic Coast Line to Altoona. We have shown as to Altoona, your Honor, from every Florida origin on the Atlantic Coast Line the shipments made to Altoona. We have shown the miles from each Florida point to Richmond, the total car miles, which is obtained by multiplying the miles by the number of cars. And then we have arrived at an average weighted haul. That is a figure which will be carried forward to subsequent exhibits where we compare the expenses, the estimated expenses south of Richmond, with the revenues accruing to the southern lines under the Commission's decision and that is the reason why in showing the last column of the exhibit we have shown the revenues [fol. 2029] which would accrue to the southern lines from the proper application of the divisions arising out of the divisional formula prescribed by the Commission.

This exhibit shows on page 62, under the heading "Grand Recapitulation" the revenue accruing to the northern and southern carriers, respectively, which arises from the appli-

cation of the Commission's prescribed divisions as applied to the 21,420 cars covered by the exhibit. As I have previously stated, we have applied to each individual shipment covered by this study the arbitrary revenue and the per cents accruing from the Commission's decision; and the net result of the application of those per cents to the revenue shows that the difference between the revenue as settled and the revenue which would accrue to the northern lines from the application of the Commission's prescribed divisions, result in a difference of $92,992.39. Now, we have been told on numerous occasions by the southern lines that the 1928-'29 study is representative or fairly representative of the season's movement in later shipping seasons. So that this would represent the annual refund which the carriers would have to make from the application of the Commission's prescribed divisions to the revenue. I mean the two carriers covered by this exhibit are the Pennsylvania Railroad and the B. & O. And this amount of $92,000 applies wholly to the Baltimore and Ohio Railroad deliveries [fol. 2030] and the Pennsylvania Railroad deliveries at destinations where only a single line is involved north of Richmond.

Judge Soper: I understand that this is limited to the deliveries on the Pennsylvania and on the B. & O.?

Mr. Beach: Yes, sir.

Judge Soper: The R. F. & P. is mentioned in some connection at the beginning of these explanatory notes and I have not gotten that straight in my mind.

Mr. Beach: The R., F. & P. is an intermediate carrier, and 17,324 of these cars were delivered to the Baltimore and Ohio and the Pennsylvania by it, but the main idea of this exhibit was to get the revenue effect of the prescribed divisions on all the cars that were delivered by single line hauls of the Pennsylvania and the Baltimore & Ohio north of Potomac Yards. All of the 17,324 cars were handled by the R., F. & P. and were then transferred at Potomac Yards to the Pennsylvania and the Baltimore & Ohio.

[fol. 2031] Judge Soper: When you calculated the amount that the Pennsylvania gets on these 17,000 cars which are partly handled by the R., F. & P., do you include in the Pennsylvania's return that part which would be divided with the R., F. & P.?

Mr. Beach: This $92,000 is the amount of the reduction north of Richmond or north of Potomac Yard, as the case may be. The destinations in each instance were on the Pennsylvania and on the Baltimore & Ohio and that is the reason they are shown in that way, but this $92,000 will be participated in by the Pennsylvania, the Baltimore & Ohio; and whenever the R., F. & P. is a party, it will participate in its proportion. We have separated this revenue figure in our Exhibit No. 10, where we show how that revenue is separated and how the expenses which will subsequently be shown are likewise separated as between the two carriers.

Judge Soper: On page 62 you are still keeping the revenues in the names of the delivery and final carriers and destination.

Mr. Beach: Yes, sir.

Witness: If you will keep pages 62, 56 and 1 together, I think you will follow me very well. On page 1 I show the total car miles, the total number of cars, the total weight, [fol. 2032] the total charges, the total revenue north of Richmond settled, the total arbitrary revenue, the net revenue, the revenue north and south under the Commission's prescribed divisions. All of those figures you will note are carried forward to page 56 where I show the totals for Altoona.

By Judge Chesnut:

I refer to the top of page 56; the first destination shown there is Altoona, Pennsylvania. I have shown there the totals that appear as to the Altoona shipments on page 1, at the top of page 56. In other words, on page 1, the last three columns under the general caption, "Divisions under I. C. C.," the revenue for all of those cars to the northern roads would be $2,174.61 and the revenue south would be $7,496.39. Those two figures I carry out in the last column of the first line on page 56.

The next item is Baltimore, on page 56, and the Baltimore totals shown on page 56 are carried forward from page 2. That same procedure was followed with respect to each one of those destinations as shown on page 56. The totals on page 56 are carried to page 62. That is 6,704,274 car miles. The first line on page 62 covers the A. C. L. origin shipments, Pennsylvania Railroad delivery, via Richmond. The

6,704,274 represents the total aggregate car miles of all of [fol. 2033] these cars brought up by the Atlantic Coast Line by way of Richmond and then carried over the Pennsylvania and the R., F. & P. The Pennsylvania carried to destination all the cars, forming an aggregate of that many car miles. 8,473 is the total cars to all destinations. Then I give the total weight to all those destinations and the total charges paid by the shippers or consignees; then the revenue as settled north of Richmond. I mean by "as settled" the northern lines make the settlement with the southern lines.

By Judge Soper:

That is the amount that accrued to the northern lines under their settlements with the southern lines. They kept that.

The next column "Arbitrary Revenue" is the total arbitrary revenue which accrued to the southern lines. The next is the net revenue which represents the difference between the $2,928,133.52 and $165,177.91. I deduct the arbitrary revenue. The settlement does not show the amount received by the southern roads. That can be shown by deducting the six hundred and forty-four from the total. The next two columns show what the north and south lines, respectively, would have gotten or will get if the Commission's decision holds on that number of cars to those points. [fol. 2034] The $628,000 under the word "North" is the figure which corresponds with $674,000 in the column "Revenue as Settled"; that is to say, the northern roads have retained $674,000. If the Commission's decision holds, they will get $628,000 and those south will get $2,300,000. There is no corresponding figure in my total of what they actually did get. On the total shipments over the A. C. L. via Potomac Yards and Richmond, the southern lines would receive $50,145.55 in addition to what they did receive.

By Judge Chesnut:

The third line from the top is the same data with regard to the Seaboard Air Line cars via Richmond. That was obtained from page 57. Florida East Coast is computed exactly the same way. Then I use the same thing for the B. & O. that I have done for the Pennsylvania.

By Mr. Beach:

The 794 cars, A. C. L. at Potomac Yards, were A. C. L. origin and the Southern Railway might have been the intermediate carrier. They went by the Southern Railway to Potomac Yards, the Pennsylvania Railroad got them at Potomac Yards and the A. C. L. was the originating carrier.

By Judge Chesnut:

This exhibit shows that the amount returnable or still [fol. 2035] due from the Pennsylvania for the cars stated is $83,353; from the B. & O. $9,639, the sum of which is $92,992 that I have referred to.

Judge Chesnut: What is the object of that? What is the purpose of it, Mr. Beach?

Mr. Beach: We are showing the revenue effect of the Commission's order as to individual petitioners and we necessarily likewise had to have the revenue under the prescribed divisions to match against expenses.

Judge Chesnut: But what relation to the whole problem is it to us to tell us that under the Commission's order the B. & O. and the Pennsylvania will have to return $92,000?

Mr. Beach: One of the provisions of the order is that we should make a refund. That refund, we will show, aggregates $1,200,000. That is one phase of it.

Judge Way: That refund does not go back so far as these shipments are concerned? It relates from November 22nd, 1930?

Mr. Beach: Not so far as these shipments are concerned, but it is the only test of record and we are proceeding on [fol. 2036] the theory that it is typical and this revenue test was put in the record by the southern lines as being typical of an average season's movement to points in the north, and we took this revenue for individual hauls and in the aggregate and side by side we put the expense for individual hauls and in the aggregate and then got the net result.

Judge Chesnut: I just do not see what is the purpose of this $92,000. What effect in the whole problem here pending to a confiscation has the $92,000?

Mr. Beach: It just shows the difference and if you are interested in knowing how much the refund amounts to, there it is, but, after all, it is the aggregate revenue that

accrues compared with the aggregate expense. That, of course, bears on the question of confiscation.

Judge Chesnut: Do you mean to say that if you had to return this $92,000 the amount you will have left is X Dollars and you want to compare that X Dollars with other dollars which show the expense of earning that X Dollars?

Mr. Beach: That is right.

By Mr. Beach:

Witness: At the bottom of that sheet 62 under the [fol. 2037] heading "Grand recapitulation" I have brought down the data as to the Pennsylvania deliveries and the B. & O. deliveries and consolidated it into one figure, and it is compiled in the same way I have explained in connection with the A. C. L. shipments via Richmond in the first line. If the Commission's order to adjust divisions retroactively is construed to mean a restatement of accounts, this is in effect what we would consider to be a re-statement of accounts, that is to say, a sample of what would have to be done in connection with the four seasons' movements.

Judge Chesnut: These illustrations taken from shipments prior to 1930 are offered merely as illustrative of the kind of adjustment you will have to make subsequent to November, 1930.

By Mr. Beach:

Unless one were interested in some particular haul or the movement via some particular gateway, I do not think any attention need be paid to any other page of this exhibit than page 62, with explanation that I have given the court as to just how the figures on page 62 are determined. It was necessary to include all of this detail to give our opponents an opportunity to check up our figures in complete detail [fol. 2038] and also because of the fact that many of the calculations and figures that we used in subsequent exhibits are based absolutely upon the detailed information shown in this exhibit, such as the weighted haul south of Richmond, the average loads per car, the total car miles, etc., and matching expenses against revenue.

The difference between exhibits 2-A and No. 2 is that 2 was confined to single line hauls north of Potomac Yards and Richmond, considering that the movement over the R., F. &

P., B. & O. and Pennsylvania was virtually a single line haul, while 2-A takes into consideration the multiple hauls, that is two, three or four lines being involved in the transportation of the car north of Richmond or Potomac Yards. So that while it is prepared in exactly the same manner as Exhibit 2, it differs to the extent that it covers the shipments on lines other than the B. & O. or the Pennsylvania but in practically, if not in all instances, the Baltimore & Ohio or the Pennsylvania was an intermediate carrier. This exhibit was prepared in a manner similar to that which I have described in connection with the preceding exhibit. In preparing this exhibit I had in mind accumulating the shipments for certain origins made by the individual line; for example, to Boston. There were two routes that moved for Boston and Albany Railroad delivery. I have taken each delivery line and have assembled the shipments from all of the Florida origins, whether they be located on the Atlantic Coast Line, [fol. 2039] Seaboard Air Line or Florida East Coast and have brought them together. An illustration of that is found on pages one and two of the exhibit. On page one of the exhibit there are shipments to Boston, Massachusetts from three points in Florida. There were three cars originated on the Atlantic Coast Line, they were received at Richmond by the R., F. & P., turned over to the Pennsylvania Railroad at Potomac Yards, that company hauled them to Wilkes-Barre, Pennsylvania, at which point they delivered the cars to the Delaware & Hudson, that road transported the cars to Albany, New York, and the B. & A. picked them up at Albany and transported them to Boston. On page two, likewise the top item, one car to Boston originating on the Atlantic Coast Line, moved by the R., F. & P. from Richmond to Potomac Yards, by B. & O. from Potomac Yards to Park Junction, by the Reading Railway from Park Junction to Boundbrook, by the Central Railroad of New Jersey from Boundbrook to National Junction, by the West Shore from National Junction to West Albany Transfer and by the B. & A. from West Albany Transfer to destination but I brought all the cars for Boston & Albany Railroad together.

By Judge Way:

I am referring to pages one and two of that exhibit. What I mean by origin point and basing point, as I explained

[fol. 2040] earlier this morning, the tariffs naming these rates do not publish a specific rate from each point of origin to each destination and we have what is known as a basing point or group system of rates which are applicable. There may be twenty or more points within a somewhat circumscribed area, all of which take the same rates and they select what is known as the basing point and determine the rate from Gillette, Florida, to Palmetto, Florida, and you first turn to Gillette in the tariff, find that Palmetto was the basing point and then find the rate from the basing point to Boston.

By Judge Soper:

I made these classifications for this purpose: We are comparing the estimated expense per car on the car mile unit with the revenue that we obtained per car from the Commission's prescribed divisions, but we are confining that comparison to single line hauls for this reason, that I believe that it is only possible to compute an average expense of handling a car one mile when you confine that comparison to one railroad except under somewhat unusual circumstances such as the R., F. & P. If you take page two, for example, to ascertain the cost of handling a car from Richmond, Virginia, to Boston for Boston & Albany delivery, I [fol. 2041] would have to determine the average per car mile unit for each of those lines and then the total per car expense for each of those lines and then add the results for each of the lines all together. That would give me a figure which I believe would be greatly inflated because of the terminal situation.

In connection with the shipment which the road originates and delivers, there are two terminals entering into the picture, the origin and the destination. In connection with a shipment received from a connecting line and delivered by another line there are not exactly two terminals. You have an interchange expense which generally, but not always, is less than the terminal expense. On the shipment where a road acts as the bridge carrier, that is it neither originates nor delivers the shipment, its function is purely that of an overhead carrier, you don't have any real terminal at all; you simply have two transfers. So that using the average expense, the terminal factor is much more manifest and is much more reflected than it would be on an over-

head shipment, if we apply those average expenses for each of the lines you would be putting too much emphasis on the terminal factor and the total car mile expense that you would obtain would be inflated.

[fol. 2042] By Judge Soper:

Q. I can understand that you think that one kind of shipment is more desirable as a basis for your calculation than the other but I gather that you have got both kinds in the book of exhibits, have you not?

A. I have got single line hauls which are all together in Exhibit No. 2.

The single line hauls are kept together in Exhibit No. 2. We are now on Exhibit 2-A which contains multiple hauls where two or more lines are involved. I separated them because I do not believe it possible to determine the cost or an estimated expense on which I could stand for these multiple hauls. I used the multiple hauls to show the effect of the divisions prescribed by the Commission upon carrier's revenue and to give this Court an idea of just what money the northern lines would be called upon to refund on the subsequent season's movement under the decision of the Commission. This study, so far as it relates to multiple hauls, shows only the revenue and the division of the revenue; it simply shows the revenue as settled and the revenue which would accrue to the northern and southern lines respectively under the Commission's prescribed division.

By Judge Chesnut:

You cannot get the cost with any degree of accuracy in [fol. 2043] cases of multiple hauls. I haven't even estimated it. There is nothing in all this tabulation therefore to show what is the cost to the northern roads of carrying citrus fruit from Richmond to Boston.

Judge Soper: Will you repeat the figures that appear in the brief as the total number of cars you have taken and which you have made a study of and what the total of all the cars was during that period.

Mr. Beach: There are 17,324 cars in Trunk Line territory as to which we have made a cost study. That is as to the three petitioners. The intervening petitioners have likewise made a study, likewise confined to single line hauls,

principally in Central territory—in fact, all in Central territory but we confined them to the single line hauls for the purpose of avoiding the Commission's criticism as to pyramiding.

Judge Chesnut: You mean to say if you had a multiple haul of three of four connecting carriers, the expense of each one having a terminal as to the aggregate expense is out of proportion to the distance of the so called line haul?

Mr. Beach: That is correct.

Judge Chesnut: And did you have any figures before [fol. 2044] the Commission which undertook to give the expenses of multiple hauls?

Mr. Beach: We had no expense figures in the record before the Commission attempting to allocate any expense to the citrus fruit traffic.

Judge Chesnut: Why did the Commission then criticise what you refer to as pyramiding terminal expenses?

Mr. Beach: That was the criticism that the Commission made of Mr. Lamb's formula in the Strawberry case, sir, and there the formula was applied, that is, the average statistics were applied in connection with traffic which the Commission pointed out moved for an aggregate distance of over 2100 miles and that resulted in considerable pyramiding and you can see because you are taking a unit, an average expense which applies to a haul of say 190 miles and then applying that to each segment of that much longer haul.

Judge Chesnut: Then I suppose, as a matter of fact, the long haul over several connecting carriers does not actually incur the terminal expense for several carriers because I suppose, as I think the witness has just indicated, there is not a terminal use of each carrier but there is a transfer merely from one line to the other. In other words, the freight cars don't go into the terminal of the inter- [fol. 2045] mediate carrier.

Mr. Beach: I think this is true, that there is what might be called a partial terminal for interchange where these multiple lines connect with each other.

Judge Chesnut: The point that seems to me perhaps to be important in relation to your whole problem is that you haven't undertaken to give us costs in cases of multiple hauls at all; you haven't given us costs that meet the pos-

sible criticism of the Commission in the Strawberry case. You have avoided that in this case entirely.

Mr. Beach: Yes, sir, and we have confined our study to single line hauls to which the Commission's criticism would not apply. The Supreme Court has said to the Commission, "When you are dealing with a large body of rates and a large body of divisions you need not investigate each rate and each division; you can act upon evidence which is typical in quality and ample in quantity.

Judge Soper: How did you get from the 21,420 cars, as I understood, in Exhibit No. 2, over to the 17,324 figure that you have been using?

Witness: We do not use the cars received at Potomac Yards. We simply confine our comparison of expenses and [fol. 2046] revenues to the cars received at Richmond. I put the Potomac Yard cars in Exhibit 2 simply to show the effect of the Commission's divisions upon the carrier's revenue. We wanted to make a segregation of the Baltimore & Ohio and Pennsylvania cars, whether they were received by the R., F. & P. at Richmond or direct from the Southern Railway at Potomac Yards to indicate that the percentage of the cars received at Richmond constituted a very high percentage of the total cars delivered by the Pennsylvania and the B. & O. for single line hauls. It was desirable to eliminate Potomac Yard cars from those on which I was going to figure costs because of the fact that I could not properly make, as I saw it, a comparable study for the South because that would involve a two-line haul. Likewise, that is the reason I did not cover any cars in my comparison of costs and revenue that originated on the Florida East Coast because there again I would have to add the expenses of the two systems to get my aggregate expense. The cars on which I have figured expense are all cars for which Richmond was the gateway, that is as far as the Trunk Lines and the petitioners are concerned. All of these 17,324 cars are cars which were transferred from southern lines to northern lines at Richmond. They were all cars that were delivered by the Pennsylvania and the B. & O. No costs were figured on any other cars except cars delivered to the Pennsylvania or the B. & O. at [fol. 2047] Richmond for single line deliveries. That is all the comparisons that have been made in the Trunk Line territory.

Mr. Beach: This is a complete showing as between the S. A. L. and A. C. L. south of Richmond and the same cars moving north to destinations on the Pennsylvania and Baltimore & Ohio. We wanted to get that contrast of single line hauls south and virtually single line hauls north.

Judge Soper: And you say that this 17,324 is part of the total which is 28,000?

Mr. Beach: Yes, sir, 28,000 cars which he will mention.

Judge Soper: And that 28,000 represents all the citrus fruit cars during the period of 1928-'29?

Mr. Beach: It represents all the cars that Mr. Hodkinson has computed in his study. There is some discrepancy between the total number of cars that he has studied and the total number of cars which moved as shown by the Commission's decision. He can explain that when he comes to that figure.

Judge Chesnut: You haven't given any data and don't [fol. 2048] propose to give any, because you think it is not necessary, which involves a two-line haul of southern roads and/or a two-line haul or more of northern roads?

Mr. Beach: We have given you some data in subsequent exhibits as to multiple line hauls south of Cincinnati where we had absolutely no single line hauls and were forced to use the multiple lines and with the explanation that the application of those system unit figures would be subject to the criticism that the Commission made of compounding terminals but we had nothing else and we had to do that but, if anything, it would inflate the Southern expenses and so we used that South, but we confined our study North to the single hauls, to C. F. A. territory as well as Trunk Line territory.

Witness (Examined by Mr. Beach): I have already stated the object of this exhibit. The first line under "Grand recapitulation", page 124 shows figures transferred from page 118. The first line shows Atlantic Coast Line shipments and the total car miles for delivering other than the Baltimore & Ohio and P. R. R. single line hauls, 4,033,829. That covered 5,030 cars. That is on page 118 opposite the word "Sub-total." All the other figures shown on this first line of page 124 were likewise transferred from page 118. At the bottom of page 118 I have another sub-[fol. 2049] total which shows the Baltimore & Ohio single line hauls and the Pennsylvania Railroad single hauls which

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cover 11,482 cars and 9,131,541 car miles. That appears under the heading "B. & O. and P. R. R. single line deliveries," the fourth line of the exhibit on page 124. Page 121 contains similar data for the Seaboard Air Line and the figures shown on that page are transferred to page 124, the sub-total for the multiple hauls and the sub-total for the single line hauls being shown under the respective headings. Those figures were transferred to 124 just as in the case of Atlantic Coast Line as an origin road. Florida East Coast cars are on page 123, sub-total of 270,559 car miles for deliveries other than the B. & O. and 2,469,933 car miles for the B. & O. and P. R. R. single line deliveries. Under the caption "Grand total" I consolidate all the shipments to all Trunk Line and New England deliveries covered by Exhibits 2 and 2-A, and this exhibit covers 28,479 cars. The net result is shown on the bottom line in the last column of the exhibit and the difference between the revenue north as settled and the revenue which would accrue to the northern carriers under the Commission's decision is $314,185.32. As I have previously shown, the Baltimore & Ohio and Pennsylvania Railroads, in connection with their single line haul delivery shipments, would [fol. 2050] be called upon to refund $92,992.39 to the southern lines. Since they are also intermediate carriers in the shipments for deliveries other than B. & O. and P. R. R. single line hauls they would also be called upon to participate in the refund of $221,192.93. This figure of $314,000 plus is the amount that the northern carriers would be called upon to refund on a season's business, taking the season 1928-1929 as typical, and the southern lines claim it is typical, for each of the subsequent four seasons. So that the amount which the northern lines would be called upon to refund the southern lines in a restatement of the account as ordered by the Commission would amount to $1,200,000 approximately, and this figure would also represent the annual reduction for the future in the event approximately that same number of cars moved, not only a question of going back retroactively and giving the southern lines this amount of money but each subsequent year's business would call for a reduction of approximately that much in the northern carriers' revenues, assuming approximately the same volume of movement to the same destinations.

On 21,420 cars the reduction aggregates $92,000 annually, whereas my reduction on 7,059 cars aggregates $221,000. The reduction on the 21,420 cars averages $4.34 a car. The average per car deduction on the 7,059 cars is $31.33 per [fol. 2051] car. It is due to various factors which I will try to explain. It is my understanding that in prescribing these divisions the object of the Commission was to just about give to the northern lines the same revenue that they did receive under the old rates. That is borne out by the statement of the Commission when they say that the entire reduction would fall on the southern lines under their decision. To get that result it seems to me that the process would be to take the large volume of movement to the port cities such as Baltimore, New York and Philadelphia, determine just what percent would be required to reach that desired result at those cities, apply that to a mileage and then build either up or below as the distance increased or decreased. That accounts for the fact that on the large volume of traffic to the port cities the reduction is comparatively small on a per car basis. When they got to the inland points, starting out from this particular premise, they had to make very violent reductions and this statement illustrates graphically the drastic reductions which were made in the divisions to the interior points.

By Judge Soper:

I infer that the Commission worked this thing out first on the basis of the port cities, not single line hauls. They use that as the starting point by which to determine the percent of the rest. The figure of $4.34 per car on 21,000 [fol. 2052] cars and $31 a car on 7,000 cars is due largely to the difference in mileage, of course, but in addition they made much more drastic reductions in the division to interior points and in the divisions to Boston, Massachusetts, and various other New England points than they did make to the port cities of New York and Philadelphia. As a matter of fact, I believe we got a slight increase to New York.

By Judge Chesnut:

There is nothing in the Commission's order that would indicate just where the Commission got these differently

effective reductions for different places that I have just spoken of. I am making an assumption that they did it. I explained that it was my opinion that that is what they did. They started out to give the northern lines approximately the same revenue out of the new rates that they received out of the rates that were effective immediately prior to these new rates and to do that they worked out the proposition on the points to which the large volume of the movement was made. I mean that the amount in actual dollars which the northern roads got for a haul, we will say, from Washington to New York, was very much smaller than the amount that they got for carrying approximately an equal distance, we will say, to Altoona, and having established the proposition or percentage of reduction for New York [fol. 2053] on the assumption that that was typical, that percentage, when applied to the very much larger return which the roads got for the carriage to Altoona, made a very much greater absolute reduction in dollars for the Altoona haul, and the same would hold good to such points as Scranton. It is my assumption that the Commission based its controlling figures on a haul to New York, overlooking the effect of the application of the same percentage or principle to interior points.

By Judge Soper:

Taking page 736 of Exhibit B filed with the petition, that table illustrates what I have been talking about, that is to say, the different effects of the proposed divisions. That shows the situation as of that time. It will be noted that the specifics, the proportions north of Richmond, were not uniform with the distances of the haul. The history of the specifics will be gone into by another witness, but I am qualified to make the statement at the time they were established to New York, or since they were established, or immediately after they were established, they were on a subnormal basis because of the effects of water competition.

The captions "Former" and "Present" mean that the former specifics to Washington, D. C., for example, were prior to November 9, 1928, and "Present" means as settled.

Mr. Beach: Your Honors, I think the real explanation [fol. 2054] of it is as Judge Chesnut indicated a while ago, the rates to the interior points were on a somewhat

higher level mile per mile than the divisions to the port cities. In the leveling process the port city divisions remained approximately the same. That is to say the division to New York, for example, which during the 1928-1929 test period took eleven thousand and some cars, remained practically the same as at present, or it was slightly increased in some instances. It could be inferred that the divisional factors were graduated up and down from that particular factor.

Judge Chesnut: What we are really concretely trying to bring to out attention is this, that the Commission in no place—correct me if I am wrong, I am not meaning to express any view at all about the merits of the case in any way but trying to get your present thought—you say the Commission at no time undertook to translate into dollars and cents the amount of the excess compensation which the northern roads were getting, but in determining the divisions they simply decided that the northern roads should have a certain percentage and the southern roads a certain percentage?

Mr. Beach: No, sir, on the other hand I think they distinctly had in mind, as they said in their second decision, the practical effect of the decision. They decided, for a [fol. 2055] season's movement, how much they wanted to give the southern lines and how much the northern lines. They made that decision and then they formulated factors which would accomplish that result. They reached the conclusion as to the amount of revenue they wanted. Then they adopted the vehicle to accomplish that. You asked yesterday, I believe, how they did that. If you are interested, I can tell you how it was done. I know the mechanics of it. They took the southern scale of first class rates for the destinations listed in the appendix there, which is in our petition, and they subtracted 11 from those rates.

Mr. Gwathmey: Mr. Beach is undertaking to say what the Interstate Commerce Commission did, without disclosing the source of his information. That is not giving you any information taken from the Commission's report.

Mr. Beach: I certainly am.

Mr. Gwathmey: I would like to have it pointed out.

Mr. Beach: I can show the first class rates prescribed by the Commission in the southern first class rates are published in the Commission's reports, and the Q-1 formula

which was the tail-end of the rate which they prescribed for movements into Central territory is published in the Commission's report, and the southern factors are arrived [fol. 2056] at by subtracting eleven from the first class scale, and the northern factor is arrived at by adding this eleven to what I say is the remainder of the joint through rate. We mathematically demonstrated it in our first petition for reconsideration, which is filed as one of the exhibits.

Mr. Collins: If the court please, if I may interrupt and call the court's attention to page 380 of the Exhibit C to the petition, which exhibit is the Commission's report on reconsideration in response to the carrier's first petition for reconsideration. At the middle of the page the Commission gives at least a little insight into its own purpose or plan in arriving at the divisions, in response to criticisms contained in the first petition filed by the carriers.

Judge Chesnut: What is the language you refer to?

Mr. Collins: It begins at this point just above the middle of the page, "Defendants also say that our prescribed divisional factors", then the report quotes from the petition, then the paragraph following the second quotation contains as I say, at least a little insight into what the Commission itself thought it was doing and the purpose it had in mind as distinguished from that which the petitioners charged against it.

[fol. 2057] Mr. Beach: I made no charge against the Commission, sir. Judge Chesnut indicated yesterday he would like to know the mathematical processes by which these factors were determined.

Witness (Examined by Mr. Beach): I have nothing further in connection with Exhibit 2-A. It is already of record that the rates which became effective on November 9, 1928, made reductions, and somewhat large reductions, in revenue. The Commission said, still referring to Exhibit C in connection with the petition, at page 381, "So far as we are able to estimate from data of record it would afford the northern lines more revenue than they would receive under the former basis of rates and divisions." This exhibit shows that that statement is not exactly correct.

Exhibit No. 3. The first point shown on my Exhibit No. 3 is Pennsylvania Railroad delivery to New York. That is on the first page of Exhibit 3 immediately following the explanation. The expenses to the Pennsylvania Railroad

would be the same on a movement from Potomac Yards to New York, regardless of the origin of the shipment in Florida, or the originating line, because that is one constant service from the Potomac Yards to New York. The first item on this exhibit is headed "R., F. & P. delivery to Po-
[fol. 2058] tomac Yards." It shows miles loaded 110. 110 is the distance from Richmond to Potomac Yards. The empty mileage is 99 which is 90 percent of 110. The total loaded and empty car miles is 209.

This Exhibit No. 3 covers nine points. There are only 13,000 cars. I think we would get along better in view of the fact that everything shown on Exhibit 3 is duplicated on Exhibit 3-A, to pass from Exhibit No. 3 and proceed to Exhibit 3-A and save the time of the court.

This Exhibit 3-A shows 17,324 cars in connection with which a comparison has been made between the estimated expense and the revenue accruing to the northern and southern lines respectively under the Commission's prescribed divisions.

By Judge Soper:

Q. The thing which caused me to interrupt you is the heading on 3-A, page 1, "R., F. & P. deliveries to Potomac Yards." These are the cars which the R., F. & P. received at Richmond and you are here giving the cost of carrying them as far as Potomac Yards?

A. Yes, sir, and adding to that cost from Richmond to Potomac Yards, the estimated expense of the Pennsylvania Railroad and the B. & O. Railroad to each one of their deliveries where a single line haul is involved.

I have already explained how the total car mileage of
[fol. 2059] 209 miles for the R., F. & P. is obtained. The expense for the loaded haul shown as 9.05954 cents is transferred from Exhibit No. 1. That is my unit car mile expense. Multiplying that unit car mile expense by 110 miles produces the 9.97 shown opposite item No. 1, "Expenses loaded haul." In other words, I have assigned here $9.97 for hauling a loaded car of citrus fruit from Richmond, Virginia, to Potomac Yard, 110 miles. For the empty return haul, or the ninety percent, I have taken ninety percent of $9.97 which is $8.97 shown opposite line 2, "Expenses empty haul." That gives a total operating expense per car of $18.94. On line 4 I have shown rental of the

refrigerator car loaded and empty at two cents per mile. I used the average figure in calculating the expense of empty hauls, ninety percent of the loaded. The rental is shown on line 4 as two cents a mile for 209 miles, $4.18. The taxes shown as 0.75851 cents per total car mile are likewise taken from Exhibit 1, and multiplying that by 209 provides a figure of $1.59. The total estimated cost is $24.71. From this cost I have deducted an amount to cover the transportation cost attributed to the icing and bunkers, and that is figured by the Interstate Commerce Commission and we use the same formula that the Commission uses in refrigerating charges on fruits, etc., from the south (151 I. C. C. 649).

[fol. 2060] By Judge Chesnut:

I do that because the refrigeration charges on this particular commodity are separate and apart from the freight rate. I deduct it from the general freight expenses or from the general per car expenses that we have shown. That gives us the estimated cost per car, excluding the refrigeration, of $23.80. Now, this expense to the R., F. & P. would remain constant regardless of the destination in the north. To determine the expense of the Pennsylvania and the B. & O. from Potomac Yards to each destination, I have determined the loaded haul, the empty haul, and the total haul. In arriving at the per car expense to each of these destinations I have gone through exactly the same processes as I have just described in connection with the R., F. & P., namely to Altoona, Pennsylvania, which is the column on the right at the top of the exhibit, I transferred from Exhibit No. 1 the total per car mile unit expense of 10.95545, and the per car mile tax expense of 0.90963. The expense to the Pennsylvania for the transportation both loaded and empty from Potomac Yards to Altoona is $62.98 per car. This, added to the $23.80 per car to the R., F. & P. produces a combined expense for the two roads of $86.78.

By Mr. Beach:

That is shown in the column under Altoona headed "Combined expense." Carrying the illustration one step further, to Atlantic City the Pennsylvania expense from Potomac [fol. 2061] Yards is $52.13 which, added to the $23.80 equals $75.93 shown under the heading "Combined expense

P. R. R. delivery to Atlantic City." The same method was followed as to each of the destinations shown throughout this exhibit, which consists of ten pages. In each case to each destination the column headed "Combined expense," is the column which contains the combination of the expenses of the delivering line and that of the intermediate carrier, the R., F. & P., and this is the figure that has been carried forward to the subsequent exhibits when we come to make a comparison of revenue and expense.

For convenience in the following computations on the subsequent pages I have repeated the same information as to the R., F. & P. haul as is shown on page 1, and to enable anyone that wants to go to the work of doing it to check my calculations. This exhibit includes 17,324 cars originating on the Atlantic Coast Line and the Seaboard Air Line and moving for single line hauls over the Pennsylvania Railroad and the Baltimore and Ohio Railroad. They were substantially all the cars that moved from points on the Atlantic Coast Line and the Seaboard Air [fol. 2062] Line via Richmond to destinations on either the Baltimore & Ohio or the Pennsylvania. In fact, I believe they were all the cars that so moved, but I may have missed one in transcribing from the Doss Exhibit. These expense figures for the individual destinations shown in Exhibit 3-A are carried forward to a subsequent exhibit where I contrast expenses with revenues. I have finished with Exhibit 3-A.

Exhibit No. 4. Exhibit No. 4 we can pass over for the same reason as we passed over No. 3, in that the information shown there is contained, along with additional information, in Exhibit No. 4-A.

The statement which is appended there, of course, will afford the explanation of Exhibit 4, but in principle 4-A is the same as 4. It includes the cars that were mentioned in the petition to the Commission, while the "A" exhibits include quite a number of additional cars. That is the distinction between these two exhibits. In Exhibit 4-A I reached the point of comparing expenses and revenue. The estimated expense north of Richmond is copied from Exhibit No. 3-A. I am reading from page 1 of Exhibit 4-A. It came from all pages of 3-A. The illustration I have given you is from page 1 of Exhibit 3-A.

Turning to page 1 of my Exhibit 4-A, in this exhibit I [fol. 2063] bring together the revenues and expenses for individual destinations. This exhibit contains, in addition to the cars shown in Exhibit No. 4, additional cars. Exhibit No. 4 is confined to 9 deliveries. This brings into the picture every destination on the B. & O. and the Pennsylvania, and it is confined to those 17,324 cars. The expense per car under "Estimated expenses north of Richmond" was taken from Exhibit 3-A. The first item on 4-A deals with Atlantic City, New Jersey, and I show in connection with that exhibit estimated per car expense north of Richmond $75.93. That is the figure which is carried forward from page 1 of Exhibit 3-A. There were two cars moving to Atlantic City so that under the column headed "Aggregate" Column No. 2, that is obtained by multiplying $75.93 by 2 which brings about an aggregate expense of $151.86. As to Atlantic City the total revenue north under I. C. C. decision shown in Column 3 was taken from page 12 of Exhibit No. 2. The total revenue north under the I. C. C. decision for all the destinations shown on this exhibit was copied from Exhibit No. 2. The example I gave was Atlantic City and that happens to appear on page 12 of that exhibit. The total cars were likewise copied from Exhibit No. 2. The last column on the exhibit shows the total difference between the estimated expense and the revenue. The aggregate expense in the case of the Atlantic City is $151.86. The total revenue was $141.13. The deficit is [fol. 2064] $10.73. In other words, the revenue which would accrue to the northern lines under the Commission's prescribed divisions, in so far as Atlantic City is concerned, would have been insufficient by $10.73 to equal the estimated expense I have indicated. This does not include any allowance for return on investment.

Where the letter "S" appears it means a surplus, and by surplus I mean that the revenue under the Commission's decision exceeds the estimated expense.

The facts shown on page 4 of this exhibit are that as to the Atlantic Coast Line the aggregate expense on the 10,451 cars north of Richmond was $768,965.43; that the total revenue north under the I. C. C. prescribed divisions would be $744,544.93; that the difference between the total revenue under the Commission's decision and the aggregate expense was $24,420.50 and that is the amount by which the revenue under the Commission's decision falls short of the expense.

In other words, it is a deficit. As to the Seaboard Air Line shipments, 6,873 cars, the difference between the revenue under the I. C. C. prescribed divisions and the expense was $29,049.29. That was the amount by which the revenue under the Commission's divisions failed to equal the expenses; in other words, that also was a deficit.

[fol. 2065] By Judge Way:

The difference with 6,873 cars over the Seaboard giving a deficit of $29,049.29 whereas 10,451 cars over the Atlantic Coast Line show a deficit of $24,420.50 might be the result of differences in weight or differences in length of haul.

By Judge Chesnut:

28 cars going to Altoona lost at the rate of about $10 a car and 3,531 cars going to New York lost apparently $9 a car. To Pittsburgh the loss on one car was $7.56. The total deficit was $53,469.79.

By Mr. Beach:

That deficit is for the three petitioners, the Baltimore & Ohio, the Pennsylvania and the R., F. & P. on those 17,324 cars.

In a subsequent exhibit I am going to break down that deficit in the aggregate expense and aggregate revenue as between those three carriers.

Exhibit No. 5. It is a fact that the data included in Exhibit No. 5 is also included in Exhibit No. 5-A. We may therefore direct our attention to Exhibit No. 5-A which likewise deals with the same 17,324 cars, except it deals [fol. 2066] with the haul south of Richmond, and it also deals with the specific deliveries that are covered by my Exhibit 4-A. The basic figures, that is the per car mile expense and the taxes and 5.75 per cent return on investment shown on this exhibit are transferred from Exhibit No. 1. We have gone through exactly the same mathematical processes to determine the unit cost per car excluding refrigeration. The first item shown is Atlantic Coast Line to Altoona, Pennsylvania, for P. R. R. delivery and in this case we have gone to the weighted haul. Taking Exhibit No. 2, I show on page 1 as to Altoona from Atlantic Coast Line origins that the average weighted haul was 799 miles.

By Judge Chesnut:

The average weighted haul in this case is obtained by dividing the total car miles by the total cars, and that gives weight to the differences in the length of the hauls. We divide the total car miles by the total cars. That is as distinguished from a simple average.

Mr. Eshelman: I wonder if your Honors would permit me to make an explanation which I think may help. In many of these commission cases we find that we are confronted with making a true average. For instance, we might have a large number of cars going for one distance and a small number for another and if we take the simple [fol. 2067] average of the mileages for those two distances we might produce a very unfair picture in that that would be only a straight arithmetical average of the mileages as to distances. But, if we are really trying to find out what was the average distance that each car moved then we have to take into consideration the number of cars that went for each of those distances and that is what the witness means when he says he takes the weighted average haul. In this case he is weighting it, not for the tonnage in the train, but by the number of car miles as they add up.

Judge Chesnut: Give us a simple illustration of how you arrive at the weighted average. Take round numbers, one hundred cars and one hundred miles.

Mr. Eshelman: I think the simplest illustration would be perhaps two cars for one hundred miles and one car for fifty miles. We would have two cars for the one hundred miles which would be two hundred car miles. We would have one car for fifty miles which would be fifty car miles, or a total of 250 car miles. Now, if we were talking only about the average distance to the two destinations it would obviously be the straight arithmetical average of the one hundred miles and the fifty miles of seventy-five miles. But, if we give weight to the fact that two of the cars went for the longer distance we would divide that 250 car miles [fol. 2068] by the three cars which would give us roughly about 83⅓ miles as the weighted average haul. I might say that if we were dealing with the weight in the cars, we would be using a different basis.

Judge Chesnut: That would be the ton mile basis?

Mr. Eshelman: Yes, sir. Then we would be weighting it by weight. Here, we weight it by miles.

Judge Chesnut: In the illustration you gave is the difference between simple average and weighted average the difference between 75 and 83?

Mr. Eshelman: That is correct, sir.

Judge Chesnut: Are you sure that figure is 75 instead of 50?

Mr. Eshelman: Yes, sir, the total would be 150.

Judge Chesnut: But you had three cars?

Mr. Eshelman: You are coming now to weighted average. It would not make any difference for the simple arithmetical average whether we had ten cars to one point and one car to the other, if we are only talking about average of the different distances.

[fol. 2069] Judge Chesnut: I thought perhaps you meant average car miles.

Mr. Eshelman: You are talking about the average distance the cars are handled. It is really the straight arithmetical average of what is really done. That is what the witness really meant.

Judge Soper: Would not the average haul mean the same thing as the weighted average haul?

Mr. Eshelman: I think it would, Your Honor.

Judge Soper: The introduction of the word "weighted" merely tends to confuse it. It does not add anything to the meaning of "average haul."

Mr. Eshelman: As long as you are understanding what the witness means, I think it would be well for him to drop the term.

Note: Mr. Hodkinson was withdrawn from the stand temporarily.

Petition of intervention, which has been served on all parties and to which there is no objection, bringing in the C. N. O. & T. P. Ry. and the L. & N. R. R. Co. was allowed. Their position was stated by Mr. Clark to be the same as that of the Southern Railway.

[fol. 2070] F. J. Fell, having been first duly sworn, testified on behalf of the petitioners as follows:

Examined by Mr. Eshelman:

I am Vice President and Comptroller of the Pennsylvania Railroad Company. I have been in the Accounting Depart-

ment of the Pennsylvania Railroad Company since March, 1896, about thirty-eight years. I am familiar in a general way with the issues of this case. I am also familiar with the fact that there have been made certain expense studies filed in this case by the witness Hodkinson, using the car mile basis.

In my opinion the making of dependable costs for particular commodities is a very difficult task. It takes a great deal of time and requires a great many assumptions.

In my opinion the cost of handling citrus traffic would be greater than the average for all other traffic for the reason that the traffic is light loading, it requires other services such as moving into terminals where we have what we call our perishable terminals which have been constructed at very considerable cost, which cost more to operate than ordinary freight terminals. There is heavier loss and damage and the cleaning and other things that have to be done in connection with this traffic which are not required on the general average of other traffic.

[fol. 2071] Expressing my opinion, the car mile basis is a more nearly correct basis than the gross ton mile basis for the reason that the citrus is very light loading and in switching service a car, regardless of its loading, requires the same service. Citrus moves generally in expedited service. Of course, my opinion applies to the Pennsylvania Railroad.

Of course, every class of traffic has certain peculiarities about it. There are certain expenses on the railroad which are necessarily more or less fixed. I mean by that that the maintenance of way and structures which has to do with the track structure, stations and buildings of that kind, the wearing out of the track the wearing out of the general maintenence of way and structures is attributable only in part to the use of the property. About one-third of the expenses are attributable to the use of the property. The other two-thirds are attributable to causes other than use. That opinion is the result of a study made and that was adopted by the Interstate Commerce Commission when they settled with the railroads for that period of six months succeeding Federal control. In other words, it was necessary to arrive at dollars and cents to settle with the railroads for the proper maintenance of that period. It was based upon a test period and in arriving at the amount which the carriers should have the

[fol. 2072] Commission attributed two-thirds of the cost to causes other than use and one-third to use. The same thing is true in not quite as great a degree with respect to the use of equipment or to the cost of equipment.

By Judge Soper:

Q. Would you mind explaining the bearing of the factors which you said formed the basis of your opinion that the car mile basis is more correct than a gross ton mile basis? You spoke of light loading and expedited service. Why do those things affect it?

A. The revenue freight is only about sixteen tons on this traffic and the traffic is perishable, it must move, it can't be laid aside like a car of coal and held for a convenient, economical trainload. It must move. It can't be laid aside. In the switching service, of course, as car is switched as a car regardless of its loading, that is if it is switched to a siding, to a yard, to a perishable terminal, it is switched as a car, not as to a ton or not as to its load. In other words, it is a unit proposition. Of course, there are a great many factors that have made me arrive at that conclusion.

Q. Why do those considerations affect one of these methods and not the other. Why aren't they taken care of in a gross ton basis as well as a car mile basis?

[fol. 2073] A. Well, Your Honor, I speak particularly of switching in a terminal because that is a very large part of a railroad cost, especially in these large terminals like New York. The weight of a car is, for comparison, twenty tons and the commodity is fifty. We have a weight of seventy tons. If we have another car with fifteen tons of commodity and twenty tons weight of the car, those two cars have to receive in switching service, moving that car to a point where it is to be unloaded, exactly the same service with a light car as with a heavier car.

I draw the conclusion from that, Your Honor, that in one case we move seventy tons which is the car and the lading and in the other case we move 35 tons which is the car and the lading. The cost to switch that car, the terminal service, is the same in one as it is in the other because the unit which is moved is the car and not the ton. Whether that would indicate that the cost is a good deal more to move a ton of citrus fruit than the average ton is a matter of opin-

ion, Your Honor, except I am trying to give you the conclusions that lead me to give that opinion. In that case what you have said is a fact.

The car mile basis and the gross ton basis are entirely different units. I have not applied one of those methods to citrus fruit and then the other so as to determine how nearly the results would compare, but one would be lower than the [fol. 2074] other, of course, on a ton basis. The gross ton mile unit would probably be lower than the car mile unit but I am not convinced that that comparison takes into account all of the elements which more or less convince me that the car mile is more nearly correct. First, this question of cost accounting is a pretty complicated question, so complicated that the Congress itself specifically instructed the Coordinator to investigate cost accounting on the railroads. I merely say that to indicate that the matter, as far as definite, exact, costs are concerned, has not reached an exact situation.

By Judge Chesnut:

I expressed the opinion that the cost of delivering the traffic per car mile of citrus fruit is greater than the average cost per car mile for other commodities. I include not the movement alone but the terminal delivery which, of course, is a very expensive proposition. What I mean by the average cost of all the commodities is that the total cost of handling and delivering and receiving all commodities in the way of freight that the Pennsylvania Railroad carries for any and everybody on the system. There is a difference in cost between many different commodities and perhaps there is a difference in cost between handling the same commodities on different parts of the line.

[fol. 2075] I don't quite agree with your Honor's statement that a haul which we have over the mountains with relatively high grades is much more costly in the energy consumption of fuel and all that than hauls on the lines of practically no grade at all, less than one-half of one per cent or something like that, because we have found in this eastern territory, with its large terminals, every time you get into a complicated terminal you increase your cost, that our costs in the east are greater than our costs in those western divisions because we load those trains to the full capacity and that, of course, depends on what traffic offers

but we try to load those trains with as many cars as it is possible to load them. I am speaking now about moving from Pittsburgh east through the Alleghanies to Harrisburg, Philadelphia, or something of that kind. If we have to haul a trainload of fifty or one hundred cars over the Alleghanies usually we have a helper engine, but, as I tried to explain, some of these expenses are not entirely attributable to the movement itself. There is a great part of these expenses attributable to causes other than use, other than the movement of traffic.

Whether it is more expensive to haul a car of citrus fruit per mile from Washington to Altoona than from Washington to New York, is a matter of opinion based, of course, on the general experience that the movement between Washington and New York would cost more per mile than the [fol. 2076] movement between Washington and Altoona. I am considering the terminals too. We know that our New York terminals are a very expensive proposition. We know that our terminal at Altoona is not—relatively, of course. Disregarding for the moment the terminal cost, I haven't any exact figure as to which is more expensive, hauling the car from Washington to Altoona or from Washington to New York. I don't know that I could fairly answer that question. Taking it as a whole I think I would be able to answer that question but when you begin to separate it into its component parts it is a little difficult. I couldn't answer as to the comparative cost per mile per car for fifty cars in a train, solid refrigerator cars of citrus fruit from Washington to New York as compared with two cars from Washington to Altoona, a part of a general train of general freight, satisfactorily or truthfully because I would have to make a detailed study of that. All I have tried to do here is to give the result of my general experience as applied to this problem. I can't answer specifically what proportion of the ten and one-half cents, the figure given by Mr. Hodkinson as the cost per mile of a car for hauling our average commodity, is represented by the cost of terminals. I do know I made a terminal cost study in New York some time ago and, if I recall the figures, it was about $29 per car for [fol. 2077] that terminal cost. I mean to say that at the time the study was made every carload of perishable fruit which avails itself of the facilities of our terminal in New York costs $29 for the unloading of that car. I don't recall

exactly the year that was made but that was the result at that time. If we connect with a carrier at Philadelphia and the division of the rate was $40 we would have to first say that our cost was $29, if we were trying to get at the net money in the movement. We would then have to add to that cost any cost of moving the car between Philadelphia and New York. Whatever that cost was, plus all other factors to be considered, we would then consider whether there was a loss in that movement. I don't recall what our average revenue per citrus car for transporting and delivering from Washington to New York is. I think Mr. Hodkinson has that in his exhibit.

Mr. Beach: The average revenue north of Richmond on cars originating on the Atlantic Coast Line, numbering 4,849, was $75.14.

Witness (Examined by Judge Chesnut): Out of that $75 it costs approximately $29 per car simply for terminal facilities at New York.

Judge Chesnut: What revenue was allowed to you under the order of the Commission of which you are complaining [fol. 2078] for transportation of a carload of citrus fruit from Washington to New York?

Mr. Beach: There are no divisions prescribed from Washington except on such cars as Potomac Yards was the gateway, and those were Southern Railway cars and they directed in the order that three percent be deducted from the percent determined via Richmond and that amount should accrue to the Southern Railway. In other words, the percent on Potomac Yard cars is three percent less. If it is 24 in Richmond it would be 21 from Potomac Yards.

Judge Chesnut: What revenue do you get under the order of the Commission? What revenue does the Pennsylvania Railroad get under the order of the Commission for hauling a car and delivering it from Washington to New York?

Mr. Beach: I can tell you that on the existing basis of divisions between the R., F. & P. and the Pennsylvania $59.88 is the revenue north of Potomac Yards which is part of the $76 figure that I gave you north of Richmond.

Judge Chesnut: I understand Mr. Fell said out of the fifty odd dollars $29 represents the terminal expenses.

Mr. Beach: That is in accordance with the terminal cost study and that terminal cost study is in this record and is [fol. 2079] referred to by the Commission in its reports.

Cross-examination.

By Mr. Gwathmey:

The Pennsylvania Railroad is a system of something like 10,000 miles, embracing not only main lines but a vast network of what may be termed branch lines. I don't recall the figures as to whether the density of traffic, that is the volume of the tonnage, on the line of our railroad between Washington and New York is greater or less than the average for our system as a whole. I feel I should have the figures in mind if I were to make a correct answer to that question. I am not unwilling to give my opinion, I am unable.

I was a witness in the New England Divisions case which was tried some years ago before the Commission. Speaking without the figures, I would say it is approximately correct that I testified in that case that the line of heaviest traffic density on our railroad is the line between Harrisburg and Pittsburgh. I don't know what would be the line of next heaviest traffic density. I can't answer that question. If Mr. Menaugh, a witness for our company, in the hearing before the Commission in this case stated, at page 765, referring to the line of the Pennsylvania between Philadelphia and New York, that "On this division the P. R. R. has a traffic movement without equal on any other [fol. 2080] part of the system, if indeed it is equalled anywhere else in the world," I accept what Mr. Menaugh says.

I am familiar with what are known as the Copeland Traffic Density Charts. I have seen them. They are charts showing the density of traffic on various lines of the various carriers. Charts of that sort are compiled in the case of the Pennsylvania Railroad. I personally accept the Copeland Company's compilations as being reliable.

Q. Then, Mr. Fell, if it be a fact that the Copeland Traffic Density Charts show that the density of traffic on the line of the Pennsylvania between Washington and New York City is three and one-half times the average for the

system as a whole, would you accept the correctness of those figures?

A. Well, I don't know. That is a deduction from the Chart. I can't accept that without examination of them.

I did not personally produce the figure of $29 as the terminal cost per car at New York City before the Commission, referred to at page 746 of the Commission's report. That estimate of $29 was compiled, I think, for the purpose of this case by one of my men who testified in the case. I believe it was used at the hearing before the Commission.

By Judge Soper:

Q. All other things being equal, does it cost more to carry a heavily loaded car than a light loaded car?

[fol. 2081] A. We have two commodities, the one heavy loading and the one light loading, but the light loading commodity has expenses which the heavy loading commodity does not. For instance, we have a perishable commodity against a commodity which is not perishable. The perishable commodity carries with it the loss and damage to that commodity. The heavy commodity is not subject to loss and damage. We have light commodities that are not perishable. Assuming that neither one is perishable, I have to know something about the commodity that your Honor has in mind. I am not trying to be evasive; I am trying to answer the question if I can. Assuming that the commodities are not perishable and that the respective trainloads in which we may suppose the light and heavy are respectively carried are subjected to the same treatment as to terminal, switching, ferrying, and so on, I must start with the premise that different commodities, whether they be perishable or non-perishable, carry with them different expenses. Some of the expenses of the road, as I tried to bring out heretofore, are like a carrying charge. They are over all other traffic. They must be distributed over all the carriage. Take the maintenance of way, in which I tried to indicate that only about one-third of it was due to use and the balance was due to causes other than use, yet that expense is there and that expense must be attributable by [fol. 2082] some factor or some unit to the traffic. I have followed that, taking things by and large, as a general opinion only. That is all I have attempted to express, that car mileage unit is more nearly correct than the gross ton

mile unit, giving consideration to all of the factors. I do not know whether that is answering your question. I am trying to answer it.

Q. Well, do you think that when I ask you a simple question as to whether it costs more, other things being equal, or less, to carry heavy traffic than it does light traffic and then when you get off to a comparison between car mile and gross tons, do you think you answer my question?

A. Well, I am trying to, your Honor.

Q. Well, I wish you would try again because I want an answer if you can give it to me.

A. There are many factors in it, sir.

Q. I am not trying to eliminate any factor but I am trying to get an answer. If you are willing to tell me that you cannot answer it I will not bother you any more. I certainly do not want to be discourteous or abrupt with you but you realize that your railroad is coming into this Court with the burden of proof on it. You are not dealing with the Interstate Commerce Commission but you are dealing with Judges who are not experts on these problems. I asked you a question which seems to me to be a simple question [fol. 2083] and all I get is a broad discussion which does not to my mind meet the point. If that is as far as you want to go, I am through.

A. Your Honor, I have no desire to be evasive. I desire to give you as much information as I can.

Q. Have you given me all the information you can? If so, I don't want to argue any more.

A. I have tried, your Honor, to do that, sir. I do not wish to be considered discourteous, sir.

Q. I do not consider you discourteous. I understand, summing up your answers, that you do not feel able to answer the question?

Mr. Eshelman: I got the impression that perhaps the witness did not understand the angle from which your question approached. As I understood your question it was on certain assumptions and it was my impression that the witness' mind was running along the lines of particular traffic. If I understood your Honor's question, it was assuming the same terminal service for two commodities, without naming either and without knowing what they are, two commodities, one of which loads lightly and one of which loads heavy, but assuming in every case that there is

no difference anywhere else, but only the line haul movement, and I think your Honor's question went primarily to that amount expended in the line haul movement. Am I correct, sir, about that?

[fol. 2084] Judge Soper: You have the witness.

Redirect examination.

By Mr. Eshelman:

I do not know that I can answer it any more explicitly than I have. Maybe I am using a cost accountant's terminology here that I should not use, but I do not know that I can make this any clearer.

By Judge Way:

Q. In making up this statement, do you know whether or not there was any difference considered between a car that moves on a through freight train and one that moves on a local freight which goes around to all the different branch lines and picks up cars?

A. Yes, sir, I understand Mr. Hodkinson's figures there show the general average of all the traffic including the through and the local.

I think it is a fact that nearly all of the citrus fruit cars that move over the Pennsylvania and the B. & O. move on through trains from the gateway to destination, but the transportation witness who will follow me will probably be able to answer that question. I should think there would be a difference ordinarily between the cost of moving a car a certain number of miles over a branch line where we [fol. 2085] are picking up freight here and there and the cost of moving a car over the main line is a through train. I should think wherever switching or divisional movements are greater the cost would be greater. I assume it is true that these local trains have to take partially loaded cars and carry them up and down different roads. In my opinion I would say it cost more to handle a car on a train of that type than it does one on our main line where it goes in a through train. That is carried into our general averages shown on the statement.

H. E. COVERSTON, a witness on behalf of the petitioners, being first duly sworn, testified as follows:

Examined by Mr. Healy:

I am H. E. Coverston, Assistant to the Vice President and General Manager of the Big Four Division of the New York Central Lines. The railway and other properties of the Big Four Lines have been leased by the New York Central Lines since February 1, 1930. I have been engaged in railroad work forty years. I started in as a messenger boy in the telegraph office, telegraph operator, operating agent, train dispatcher a short while, agent, yard master, traveling auditor, special agent in charge of special investigations, then into a little cost accounting work for a few years, and [fol. 2086] back to my present position.

I was not a witness before the Interstate Commerce Commission in Docket No. 24069 and Docket 24160 with respect to rates on citrus fruits to points in official territory. I have examined the exhibits filed in this case by Mr. Hodkinson, beginning with C-1 to C-7 inclusive.

There is no known basis for apportioning the operating expenses to a specific traffic. You have first the loading, the speed, and the character of the traffic itself, the weight, the bulky and light commodities, and you run into so many assumptions that no one has ever yet been able to make an accurate study. It is just simply impossible. You cannot divide the cost of maintenance of way or repairs by any degree of accuracy without assumptions. The expenses which are directly allocated to the movement of traffic represent a small portion of the total expenditures of the railroad. The maintenance of way and maintenance of equipment expenditures constitute a large portion of the general expenditures of the railroad. In ascertaining the particular cost of handling a particular traffic we would have to allocate some portion of those general expenses and you would have unlimited assumptions to make.

In view of the fact that there is no known method of accurately apportioning total freight operating expenses to a specific traffic, it is necessary to estimate the average costs, and the method followed of determining the average [fol. 2087] costs on basis of dividing the operating expenses and taxes chargeable to the handling of freight traffic by

total freight car miles as used in the Hodkinson exhibit is not only equitable in my opinion but is reasonably indicative of the trend, and as this method is used for both the southern and northern lines, it produces results that are comparable, particularly so in view of the fact that it undoubtedly understates the cost of handling citrus fruits. The use of the cost per car mile instead of per loaded car mile is at least fair, as the use of the latter would assume the same average empty movement for each class of traffic, unless an adjustment was made to compensate for the return empty haul. In the instant case the average cost per car mile is determined for each territory and applied to the actual car miles, both loaded and empty, made in handling citrus fruits. The use of the cost per car mile against the cost per gross ton mile as a proper unit of measure is justified by the fact that a railroad would be required to handle one and one-third cars of citrus fruit to equal the gross ton miles obtained from handling one car of coal an equal distance; while, if the cost per net ton mile is used, a railroad would have to handle approximately three cars of citrus fruit to equal the net ton miles obtained from handling one car of coal, and without question it is more expensive both in terminals and on road to handle two or three [fol. 2088] lightly loaded cars versus one of a heavy loading commodity. At Indianapolis, if a car is reconsigned before being placed on delivery tracks, and provided it is not the third reconsignment (two reconsignments being permitted free), no charge is made. However, the additional switching costs average $2.39 per car. If a car is reconsigned after it has been placed for unloading, the cost of switching the car to the delivery tracks and returning it to the current of traffic is estimated to be $13.22 per car.

I would say the cost of handling citrus fruit over the Indianapolis and St. Louis divisions on the Big Four, which are heavy divisions, is more expensive than the average of handling all freight.

Citrus is handled with greater dispatch in both terminals and on the road, the question of market conditions, the perishable nature, and competition. Those services are greater than required on a car of dead freight. Other commodities very frequently are held back for later departing trains in order that trains of that nature will receive the minimum operating interference on the road such as the

meeting of other trains, interference of expedited freight service. In other words, we do not make the effort to get a car of coal over the road that we do a car of citrus fruit. The service does not demand it. Further than that, in the movement of citrus fruit north of the gateways, only a few [fol. 2089] cars are handled on any one day by most of the lines. The northern lines move this traffic in expedited service in order to meet market conditions, in lighter trains than it is possible to move the average line of traffic. For example, referring to page 20, 43, and 47 of the Hodkinson exhibit showing that the Big Four handled 1118 and 415 cars of citrus fruit respectively in the two hundred thirty days of the season, the mathematical average would be seven cars a day. Of course, some days you would handle more and some less but it is indicative that we only handled a few cars at a time. Therefore, we have to give it quick service through to terminals and we have got to handle it on the very first expedited freight train that goes. You have got to move it in the terminals even though it is only one car. If it takes a special run, we have got to make the run with the switch engine into terminals.

By Judge Chesnut:

I am not posted on whether the West uses less citrus fruit than the East.

Mr. Healy: The amount of Florida citrus fruit is less to the Central Territory than to New England.

Witness: When I was speaking about our road handling only seven cars a day of citrus fruit I was referring only to the number of cars that the Big Four handled in the 1928-[fol. 2090] 29 season as shown by the Hodkinson exhibit. We, of course, handle citrus fruit from the West but we do not handle it through Cincinnati. Practically all of the fruit we handle through Cincinnati north to Indianapolis, Cleveland, Detroit, and so forth, would be from the southern territory. Our citrus fruit that we would handle from the West would come to us through gateways nearer Chicago, Peoria and St. Louis.

By Mr. Healy:

The heavy movement of citrus fruits by northern lines occurs during the season when winter weather conditions

are encountered and the cost of conducting both road and terminal operations are at the highest point, as winter weather conditions materially increase operating costs. This is not true of southern lines, as they do not encounter such adverse weather conditions in their territory. Further, the per car mile cost as used in the aforementioned exhibit does not fully charge the handling of citrus fruits in expedited service with the cost of delays and interference to other service; neither is it charged with the higher cost incident to operating such expedited service, nor is citrus fruit charged with the cost of inspection, maintenance of perishable records, policing of ventilation conditions and the cleaning of equipment before it is returned to the southern connections. Therefore, the average car mile cost used [fol. 2091] in the Hodkinson exhibit must reflect a cost of handling citrus fruit which is not as high as is the actual cost. Average terminal costs are exceeded in the handling of citrus fruits as s[illegible]novements are required in terminals for one or mo[illegible] cars of perishable traffic that is not accorded to the average carload traffic. This is particularly true of the handling of citrus fruit at intermediate and destination terminals of northern lines as usually only a few cars of this traffic are handled on a given date, and special switch engine runs are necessary to make connection for outgoing trains and for placement upon unloading tracks. Dead freight, on the other hand, does not receive similar service, but waits for usual or scheduled movements which is in much larger quantities. The delivery of citrus fruits at destination is usually made through expensive terminals and team tracks located near the center of large cities, the cost of which is a heavy burden upon the delivering lines. For example, a study made of the cost of ownership, maintenance, taxes and operation (not including switching costs) at the produce delivery yard in Indianapolis, for the month in which the least and the month in which the greatest number of cars of perishable freights unloaded during the year 1929, indicates that these costs range from $13.93 per car for the month of the highest traffic density to $27.43 per car in the month the lowest number of cars were handled. Interest, taxes and maintenance have [fol. 2092] been included in that total there as applied to the produce delivery yard in Indianapolis. It is located right down in the heart of the city.

The expense to terminating lines incident to the handling of perishable traffic, insofar as the policing and settlement of claims for loss and damage is concerned, is an expense not incurred by the originating lines, as the necessity for policing the delivery to avoid exorbitant claims is incurred only by northern lines and is much more expensive than the handling of the average carload traffic. In the year 1929 the cost of claim payments alone on the Big Four equalled $2.14 per car of citrus fruit versus thirty cents per car on all traffic. This cost did not include the expense of policing the delivery of citrus fruits. The average haul for the year 1929 on all traffic, on eight southern lines, was 197 miles. Hodkinson's exhibit shows that the average haul on citrus fruits to the Ohio River gateway was 933 miles. That may cover one, two, three, or four line hauls. During the same year, the average haul on all traffic on the northern lines was 205 miles as against an average haul of 227 miles on citrus fruits. Therefore, to the extent that the average haul on citrus fruit in each territory exceeds the average haul of all traffic, terminal expenses have been overstated. The southern lines' terminal expenses, on the basis of a one line [fol. 2093] haul have been overstated 374 percent on the Hodkinson exhibit.

On the basis of a one line haul on a car of citrus fruit, the average of 933 miles, the terminal expense of the southern lines have been overstated 374 percent. If it was a two line haul they have been overstated 137 percent. If it is a three line haul they have been overstated 58 percent. While, if it is a four line haul they have been overstated 18 percent. That figure will be the one that will be made a comparison with in just a second. While, on the northern lines the overstatement equals only eleven percent in the Hodkinson exhibit because he has confined it strictly to a one line haul, so the very least the overstatement could be in the northern roads is eleven percent and the very minimum is eighteen percent on the southern roads and as high as 374 percent according to the number of lines involved in the 933 mile haul. I did not have the weighted average so I had to work it from that end. The southern lines have criticized the Hodkinson exhibit for not omitting certain items of expense, such as the cost of handling less than carload traf-

fic at terminals. The inclusion of such expense has been more than fair in the cost per mile used for the southern lines, for the reason that in the year 1929 approximately 3.85 percent of the total tonnage handled was less than carload while only 2.10 percent of the total tonnage handled by northern lines was less than carload. It should be borne [fol. 2094] in mind that the Hodkinson exhibit uses as a basis the cost per car mile, that is the total car miles, both loaded and empty, are divided into the total expenses allocated to freight on the formula prescribed by the Interstate Commerce Commission. This produces an average expense per total car mile on all freight. It is true that the total operating expenses both north and south include some items of expense which obviously are not encountered by the railroads in the transportation of citrus fruits, such as maintenance and operation of coal and ore wharves, grain elevators, and so forth. If these items of expense and all other operating expenses incurred in the handling of traffic that utilizes these facilities were deducted from the total operating expenses, a corresponding reduction would have to be made from the total car miles, and numerous assumptions would have to be made as to the proportion of maintenance of way and other expenses which should be allocated to the transportation of these particular commodities. In the Hodkinson exhibit the same yardstick has been used on both northern and southern lines, and, as previously stated, if any items of expense are eliminated which might be directly assigned to a particular commodity, insurmountable difficulties will be encountered. In summing up, when all of the conditions mentioned herein are taken into consideration, the use of the average cost per freight car mile [fol. 2095] for this light loaded commodity is more than fair to the southern lines, as it undoubtedly overstates their cost and understates the cost shown for northern lines.

When I refer to the fact that the Big Four received only 1500 cars during the shipping season through the Cincinnati gateway, which averaged seven cars a day, it is a fact that those cars were destined to many points throughout Central Freight Association Territory. All of them were one line points like Cleveland, and intermediate to Cincinnati, Indianapolis and intermediate and other outlying points all on the Big Four Railroad.

Cross-examination

By Mr. Gwathmey:

I do not think it would be possible by conducting actual tests extending over a period of time to ascertain with a greater degree of accuracy what the cost of handling a given commodity is.

Q. Judge Chesnut asked about the volume of the movement of Florida citrus fruit through the Ohio River to C. F. A. territory. In the Commission's report it is stated that in the November 9, 1929, to June 30, 1929, season, the entire movement to Central territory was on 8,773 cars as contrasted with the 29,221 cars to the balance of Official Territory, that is to the East. In your judgment are those figures [fol. 2096] approximately correct?

A. I have no judgment in the matter because I have not looked it up to see just how many cars were handled by all roads.

The majority of the cars of citrus fruit from Florida to the Big Four move through Cincinnati. We have some through the Louisville-Jeffersonville gateway, a few through Evansville and a very few other gateways. I could not say whether any of them move from Richmond on Potomac Yards because we do not operate out of Potomac Yards. We would not get them until we got them at Cincinnati where we would connect with southern or eastern roads.

Mr. Beach: It is conceded that none of the cars about which the witness is testifying are included in the 17,324 cars which are covered by Mr. Hodkinson's study.

By Mr. Gwathmey:

I cannot give the maximum number of cars per day of Florida citrus fruit which our line handled on any day during the 1928-'29 season because I do not follow the actual movements quite in detail. I cannot answer that without looking up the records. We averaged for the total period seven cars a day. We probably handled a good many more than that on some days and probably less on some days. I told you I was not familiar with what we did on any par- [fol. 2097] ticular day without going back to the records and I have not looked into that.

I have referred to certain studies made of the expenses at the Indianapolis produce terminal showing terminal costs from $13 to $27, approximately, per car. They were made under my jurisdiction by my statistician. He is not here today prepared to testify as to the accuracy of those studies. I can testify, though, because I looked into every one of the figures that were brought in to me. Those studies have not been used, to my knowledge, before the Interstate Commerce Commission in this case. I have the figures and other data with me upon the basis of which I am prepared to stand cross examination on those studies. I am willing to produce and let you examine the underlying data upon which the figures were compiled if my attorneys are agreeable to that.

The Hodkinson study purported to include all terminal expenses of all southern lines as reported in their annual reports less accounts 3, 14, 15 and 16. The comment that I made was in direct answer on my part to the criticism that was made in connection with the overstatement of handling less than carload traffic. Mr. Hodkinson's study took into account all expenses, terminal and line, of various southern railroads throughout the south by individual lines. The Hodkinson study includes terminal expenses of all of the [fol. 2098] lines of the Southern Railway or any of its subsidiary lines that are covered by the Hodkinson exhibit.

I arrived at those overestimated percentages by taking the I. C. C. reports for the year 1929. My statement that the Hodkinson study overestimates the terminal expense of the Southern Railway by certain percentages is based on the average yearly haul for the year 1929 of all traffic for eight southern railroads of 197 miles against your 933. Assuming the one line haul for the 933 miles is 374 percent overstated of terminal cost in the southern group. The average haul on the eight southern roads to which I referred is shown on the Hodkinson exhibit, 933 miles weighted average haul. He computed it by dividing the cars into the car miles and got the average haul, qualifiedly, for each of the eight southern lines' haul. I qualified my use of the 933 on that basis.

By Judge Soper:

The cars I refer to as moving via the Big Four, 1118 and 475, are not all the cars of citrus fruit which the Big Four

handled but only the cars which the Big Four handled as a single line carrier. There were other cars handled by the Big Four which were delivered to its connections throughout the season. These are just the ones which were shown [fol. 2099] as single line hauls in the Hodkinson Exhibit. On page 1 of my memorandum I am endeavoring to demonstrate that the cost per gross ton mile would not be the proper unit of measure here. If it were, it would be considerably less than the cost of moving citrus fruit; that is to say, that figure would not reflect the cost of citrus fruit very accurately; it would be under-stated. The theory is that the railroad would be required to handle one and one-third cars of citrus fruit to equal the gross tonnage obtained from handling one car of coal an equal distance, and based upon the fact that the citrus fruit involved light loading. You have a very light loading commodity and your car tons per ton of commodity are heavier. If I were considering this question of light loading as one of the factors, it would have just the opposite effect as the car mile theory and unfairly so. I say unfairly because you do not give consideration to all of the things you do. Where you are handling one car of coal or heavy commodity in the terminal it takes approximately the same time as if it is a car of light loaded freight, or a dead commodity. It takes just the same time to handle it, but when you come into terminal expense on citrus fruit, you then come into quick service on the small number of cars handled. You cannot hold them back to await their usual flow of traffic. They must be moved immediately both through the terminals and by the trains, and when you get them to destination you must make your [fol. 2100] delivery promptly.

I do not think that a light loading feature, which is distinctive with the citrus fruit, makes the car mile basis too favorable to us. You have to take all of those things into the picture when you draw a conclusion or obtain a result. There are other light loading commodities the same as there are citrus fruits, but the most of them are perishable. There are a few that are not, of course, but practically all of your light loading commodities come in that perishable class; livestock, meat, and so forth. They are a little heavier than the citrus fruits in some instances and less in some others, but the car mile, in my opinion, is more representative because it takes into consideration more nearly the service

that you give to it. Your manifest trains are rarely more than fifty cars in our territory because our car limit runs to about that. We hold them down to the small number of cars to maintain the speed. You can go into the realm of speculation as to speed against weight. I do not think I am hardly qualified to talk on that. You have probably heard that brought out and I think you will hear some of it later on from the witness who is capable of handling it.

E. A. Hodkinson, a witness on behalf of the petitioners, [fol. 2101] being recalled, further testified as follows:

Examined by Mr. Beach:

I was discussing Exhibit No. 5-A and I explained that in determining the per car cost shown, for example on page 1 of that exhibit, that I had followed the same method that I had used in connection with the same cars north of Richmond.

The first item on page 1 of the exhibit reads: "A. C. L. to New York, P. R. R. delivery" means weighted haul. I am going to make another attempt, your Honor, to make plain to you what I mean by weighted haul and thereafter eliminate the word "weighted" in my testimony and call it an average haul, but it is not the mathematical average. I have taken origin, the mileage from that origin to Richmond, and multiplied that mileage by the number of cars. I have added the total car miles as you will note from page 1 of my Exhibit 2 and have divided the total car miles by the number of cars, and that, as to the A. C. L. origin to Altoona, Pennsylvania results in an average of 799 miles. That means that each of the 28 cars received an average loaded haul of 799 miles My purpose in striking that average was that it enabled me as to shipments originating on the Atlantic Coast Line destined to Altoona, Pennsylvania, to confine my comparisons to one example, and that is to [fol. 2102] the average haul of 799 miles. Had I not struck that average, it would have been necessary to make a computation as to the estimated cost per car for each one of the movements and that would have multiplied the computations tremendously in each case under the distance shown. I have shown the average haul and the average haul has

been taken from my Exhibit No. 2. As previously stated, the average haul of 799 miles to Altoona, Pennsylvania, is taken from page 1 of Exhibit 2 and likewise the average haul of 773 miles from Atlantic Coast Line origins to B. & O. delivery via Richmond is taken from page 2 of Exhibit No. 2. The same procedure has been followed as to each of the destinations covered by this exhibit. The only difference between this exhibit and Exhibit 3-A which carries similar information for the northern roads is that this exhibit shows the amount necessary to produce five and three-quarters percent return on the investment and I have also made the computation of the estimated cost per car, both including and excluding the five and three-quarter percent return.

My total estimated cost, including five and three-fourths percent return on investment as part of that cost of transporation is in line 7 of the exhibit but is subject to the further reduction for the estimated transportation cost of the ice and the bunkers so that the net cost per car, excluding [fol. 2103] refrigeration and including the five and three quarters percent, is in line 9 of the exhibit. Excluding the rate of return it is line 10 of the exhibit and line 10 of the exhibit represents the result which is attained by subtracting from the $209.50 shown in line 9 of the exhibit. The investment figure of $39.79 is shown as item 6 of the exhibit. The figures shown on this exhibit 5-A have been carried forward to a subsequent exhibit which will contrast the revenue received by the southern lines under the divisions prescribed by the Commission with the designated expenses.

Mr. Gwathmey: At this point I want to interpose an objection to counsel proceeding further along this line. The exhibits have been filed with the Court showing an alleged amount of expenses as contrasted with revenue of the southern lines. It is our contention, if your Honor please, that this Court is not here trying the question of what a reasonable division is. That issue has been passed upon by the Commission and the Supreme Court has said in many cases which I am prepared to cite that the Commission's adjudication of that issue is binding upon the courts. The allegation of the bill here is that the divisions prescribed for the northern roads are confiscatory. There is no allegation in the bill that the amount of the through rate as a

[fol. 2104] whole is insufficient to reasonably compensate both sets of carriers. There is no allegation in the bill that the divisions allowed the southern lines are confiscatory and I submit to this court that upon the issues here it is absolutely immaterial whether the southern lines receive twice as much or three times as much as the northern lines. The Commission has said that the prescribed divisions are reasonable for both sets of lines. Therefore, I submit that all of this testimony is entirely irrelevant to this case.

Mr. Collins: I would like to join in the objection, if the Court please, particularly as it is the same one that I stated yesterday on behalf of the United States.

Judge Soper. The objection is overruled.

By Mr. Beach:

I have followed the same procedure insofar as determining the expenses to all other destinations, that is on cars to all other destinations named in Exhibit 5-A, as I have already explained with respect to Altoona, and I am at this time ready to take up my next exhibit.

Exhibit No. 6: In view of the fact that the data in No. 6 is incorporated in 6-A, we may go direct to 6-A. In that [fol. 2105] exhibit I bring together the revenue under the Commission's prescribed divisions south of Richmond and expenses as I have allocated them in the exhibit which I have just finished discussing.

The first item shown against Atlantic City under the heading (page 1 of the exhibit) "Estimated expense per car south of Richmond," including the five and three-quarter per cent return, is taken from Exhibit 5-A. Reference to Exhibit 5-A will show that the net cost per car, excluding refrigeration, from Atlantic Coast Line origins to Atlantic City, P. R. R. delivery, is $208.94; excluding the five and three-quarter per cent, page 1, Exhibit 5-A shows that the amount of the estimated cost, excluding the return, is $169.26. The average haul of 797 miles is also taken from Exhibit 5-A. The weighted average revenue south of Richmond, based upon divisions prescribed by the Interstate Commerce Commission or the average revenue per car for the average haul is $271.25. That amount is taken from Exhibit No. 2. The total revenue under the divisions prescribed by the Interstate Commerce Commission is $542.51.

That was taken from Exhibit 2-A. That accounts for the fact that if you multiply the $271.25 by two the result would be $542.50. Two is the total number of cars shown in column 6 of this exhibit. It has no reference to this column No. 2. The purpose in showing column No. 2 on this ex-
[fol. 2106] hibit is deducting column 1 from that figure of $271.25, the difference between the estimated expense per car and the revenue per car, the estimated expense, including five and three-quarters per cent return on investment, is $62.31. Multiplying $62.31 by the number of cars, namely 2, produces the total difference between the estimated expenses and the revenue and that amount is a surplus of $124.62. In other words, the revenue accruing to the southern lines under the divisions prescribed by the Commission on these two cars exceed the expenses, including the five and three-quarters per cent return, in the amount of $124.62. It will be recalled that in comparing expenses and revenues for the northern lines that no allowance was made for any return upon investment in our figures. In order to make a comparison of like with like and put the southern line figures on exactly the same basis as the northern line figures, I have in the last column of the exhibit shown the amount available for return on investment. In column 1-A of the exhibit, going back, if your Honors please, excluding the five and three-quarters per cent return on investment, the expense per car on a shipment to Atlantic City, the expense per car south of Richmond, would be $169.26. This amount, deducted from the average revenue per car south of Richmond under the Commission prescribed divisions produces a difference of $101.99. That is the difference between the revenue and the expense. Multiplying [fol. 2107] this amount by 2 produces a figure of $203.98 which is the amount which the southern lines have left available for return on investment on these two cars. The computations and the method followed as to every other origin shown in this exhibit are exactly the same as I have described in connection with Atlantic City. The results are summarized on page 4 of the exhibit. The results as to the Atlantic Coast Line occupy the first two pages, and the Seaboard Air Line origins the last two pages, with the summary of both the Atlantic Coast Line and the Seaboard Air Line at the bottom of page 4.

Turning to page 4, the net result of this comparison of the Atlantic Coast Line shows that line had available for return on investment $1,082,894.01, that amount representing the difference between the revenue which accrued to the Atlantic Coast Line under the Commission's decision and the total estimated expenses excluding any return. As to the Seaboard Air Line Railroad the amount available for return on investment was $684,184.85 on 6,873 cars. For the total 17,324 cars included in the exhibit the amount available for return on investment to the southern lines aggregated $1,767,078.86. These 17,324 cars are exactly the same cars as were dealt with in my exhibit No. 4-A where I showed that the difference between the expenses and revenue insofar as the northern lines were concerned are on exactly the same basis as I determined the amount available for return on investment to the southern lines, leav-
[fol. 2108] ing the northern lines absolutely nothing for their return on investment but, on the contrary, a deficit of $53,469.79. Coming back to page 4, the figure $982,000 is the total difference between the estimated expenses and revenue and that is predicated on a five and three-quarter per cent return on investment being included in the estimated expenses per car.

By Judge Soper:

I included in the expenses in getting that figure five and three-quarters per cent on the investment and that is the amount that is left to the southern lines over and above the five and three-quarter per cent return on investment. In the last column the five and three-quarter per cent has not been taken off. My explanation yesterday was that the five and three-quarter per cent was figured on book costs. That is the figure I took from book investment.

By Mr. Beach:

I am familiar with the table which was reproduced in our petition and is likewise reproduced at page 28 of the supplemental preliminary brief which was filed showing to individual destinations the amount per car that is available for return on investment for both northern and southern lines. This exhibit contains similar information for each destination in Trunk Line Territory which received cars of

[fol. 2109] citrus fruit in the 1928-'29 season, that is each destination over lines of the Baltimore & Ohio and the Pennsylvania in column 5.

Exhibit No. 7: The information contained in Exhibit No. 7 has been incorporated in No. 6-A.

Exhibit No. 8: In making my studies of estimated expenses, I would have preferred to have used the car mile unit. I was prepared to confine this to strictly one line hauls but was compelled to make a combination of the expenses for the R., F. & P. and the B. & O. and the R., F. & P. and the P. R. R. but in doing that I did not overload the terminal situation and give undue emphasis to the terminal expense because of the fact that the R., F. & P. is so largely what is known as a bridge carrier and by a bridge carrier I mean a carrier that does not originate or terminate a very large proportion of its traffic, or rather a carrier that originates and terminates a very small proportion of its traffic. It acts as intermediate carrier between the original carrier on the one hand and the destination carrier on the other. My Exhibit No. 8 is prepared from the freight commodity statistics on file with the Interstate Commerce Commission and shows for the year 1929 the tons of revenue freight for the Richmond, Fredericksburg & Potomac Railroad. The real significance is in column No. 6 and that [fol. 2110] shows as to the grand total of carload and less-than-carload that the Richmond, Fredericksburg & Potomac did not either originate or terminate 75.25 percent of the total traffic which it handled.

My column 5 is the total tons carried. I have 4,774,295 tons of traffic which were carried by the R. F. & P. in the year 1929. 3,583,270 tons of that traffic were received by the R., F. & P. from connections and delivered to connections. That is 75.25 percent of the total. As to the citrus fruit traffic the exhibit likewise indicates that the R., F. & P. is an intervening line, even more so than the general run of traffic because as to the citrus fruit 99.91 percent of the citrus fruit tons which it carried were neither originated or terminated by the R., F. & P.

H. E. COVERSTON resumed the stand for cross-examination:

By Mr. McGehee:

The terminal cost at Indianapolis in the month of July, 1929, of $13.93 which was the highest traffic density month and $27.42 in December which was the lowest traffic density [fol. 2111] month I don't believe I stated was on citrus fruits. I said that was the cost of unloading the car or handling a car on those tracks during the highest and lowest months of the year '29. $11.26 of the $13.93 is interest on the value of the land, the tracks and the driveways and one small building. The value of the land is $1,551,777. I figured the interest at six percent and out of that $13.93 over $11 is interest. $1.24 per car is included for taxes; maintenance 28 cents, operations $1.09; supervision 5 cents. In the $27 figure for the low month $22.69 is charged for interest on investment because there was a much smaller divisor as to number of cars unloaded. The interest is a constant factor. Taxes were $2.50 in round figures; maintenance 57 cents, operation $1.59; supervision 8 cents. The expense per car is governed by the volume. On this kind of facility it is true that with the volume of traffic handled the expenses go up or down, per car. If we had twice as many cars in the high month we would have had very much less than $13. It is only a mathematical computation to do that but the fact remains that our investment is constant, and the interest on it is constant.

By Judge Way:

On the low month the charge for interest is very close to 81 per cent. Of course, you understand this produce yard is located right down in the heart of the city, near the [fol. 2112] wholesale district.

By Mr. McGehee:

The number of cars that we could handle a month there with the facilities that I have covered by the exhibit would depend a good deal on how fast they are unloaded. I don't know that I could answer as to the maximum we could handle. I never made a study as to that. This is what we did do. I cannot give the maximum we have ever

handled there and I cannot answer whether we could handle 1500 cars a month.

E. A. Hodkinson resumed the stand for further direct examination:

Examined by Mr. Beach:

Exhibit No. 9: In my exhibit No. 8 I showed the traffic statistics for the Richmond, Fredericksburg and Potomac Railroad and showed that as to the majority of its traffic it was neither an originating or a delivering line. Consequently the terminal factor does not cut so much of a figure in their operating expenses as it does with a line that does perform the terminal service at both ends or at one end. [fol. 2113] Theirs is purely an intermediate service and while there is expense attached to the interchange of freight between carriers, as I said this morning, generally speaking that interchange expense is less than the terminal expense.

By Judge Soper:

I can give you the outline of how the interchange expense occurred, but the practice varies with the interchange points. At some points the carrier places it on the delivery track of the connecting carrier and that carrier sends its own power down to that delivery point and takes it on to its destination. To show that in combining the expense of the R., F. & P. with that of the Pennsylvania and the Baltimore & Ohio I have not produced an expense which is out of line or unreasonable, I have in exhibit No. 9 compared the combined expense of the R., F. & P. and the B. & O. for certain deliveries and the R. F. & P. and the Pennsylvania Railroad for certain deliveries with the expense which would have accrued had the entire haul been over the Pennsylvania Railroad for the same distance, the combined distance. As an illustration, the first point shown on the exhibit is Altoona, Pennsylvania. The distance from Richmond to Altoona, Pennsylvania, is 358 miles. In the combined exhibit 110 of those miles were assigned to the R., F. & P., that being their haul from Richmond to the Potomac Yards and expenses were computed on the basis

of that 110 mile haul and 99 miles empty. The distance [fol. 2114] from Potomac Yards to Altoona was 248 miles loaded and 220 miles empty and the expense was computed for that distance over the Pennsylvania Railroad. The combined expenses shown in Exhibit No. 3 is $86.75 per car. That figure as compared with what the expense would be if the entire haul was over the line of the Pennsylvania Railroad and if the entire haul had been over the line of the Pennsylvania Railroad, using the car unit expenses on that line and the empty return ratio of that line to the entire movement produces a per car expense of $90.88 which is in excess of the combined expense of the R., F. & P. and the Pennsylvania. The same holds true as to Baltimore, Maryland, the combined expense being $37.76 and if the expense of the haul if it had been wholly over the Pennsylvania Railroad for that distance, would be $41.47. In every instance the expense for the same haul over the line of either the Pennsylvania Railroad or the B. & O. would exceed the combined expense of the R., F. & P. and Pennsylvania or the R., F. & P. and the Baltimore & Ohio. So that in combining those expenses I feel that the showing I have made is conservative.

Exhibit No. 10: Exhibit No. 10 deals with exactly the same number of cars and the same cars, namely 17,324, as are shown in my Exhibit No. 2 and those are the shipments where the Pennsylvania Railroad or the Baltimore & Ohio Railroad had only a single line haul north of Potomac [fol. 2115] Yards. From Richmond the transportation of those cars involved two lines, the R., F. & P. from Richmond to the Potomac Yards and the Baltimore & Ohio or the Pennsylvania Railroad, as the case may be, from Potomac Yard to destination. Since there are two carriers interested in the haul, naturally each one of them is entitled to some share of the revenue.

The Commission did not prescribe the intra-territorial division either north or south of the gateways. Its finding was simply what the break in revenue should be north and south of the gateways, irrespective of the number of carriers involved in either the haul south of the gateway or north of the gateway. The Commission in its order named the gateways and Richmond was specifically named and insofar as the shipments transported over the line of the R., F. & P. are concerned, that break was on Richmond.

The only instance in which they made the rates break on Potomac Yards was in cases where the Southern Railroad performed the haul into Potomac Yards from Richmond and the division prescribed in that case north of Potomac Yard was three per cent less than the per cent would be if the rate broke on Richmond. In other words, if the break on Richmond was twenty-three per cent north and seventy-seven per cent south, the break on Potomac Yards would be eighty per cent south and twenty per cent north. We get the per cent first north of Richmond and in the event that [fol. 2116] is twenty-three per cent north of Richmond and seventy-seven per cent south of Richmond, in making the break via Potomac Yards the per cent would be twenty per cent north and eighty per cent south.

By Mr. Beach:

I did not mean a factor of three; I meant three per cent, in this way, that if it were twenty-three per cent north of Richmond the Commission said deduct three from that and it will be twenty per cent from Potomac Yard—three percentage points. On the question of expenses, I have already indicated how I arrived at the separate expenses of the R., F. & P. and the B. & O. and P. R. R., respectively. I segregated the revenue as between the R., F. & P. and the Pennsylvania on a shipment which moved over both lines in accordance with the divisions contained in the current division sheets which were furnished me by the Pennsylvania and the Baltimore & Ohio Railroad respectively. Those divisions are on various bases depending on destination and length of haul.

I think that the Court could more easily follow me with my explanation as to Carlisle, Pennsylvania, where the arbitrary revenue does not enter into the picture. To Carlisle, Pennsylvania, the aggregate revenue north of Richmond was $235.94. The current per cent or current division sheets provide that in the sub-division of revenue north of [fol. 2117] Richmond or from Richmond to Carlisle, Pennsylvania, the Pennsylvania Railroad will receive sixty per cent of the total revenue for its haul and the R., F. & P. will receive forty per cent of the revenue for its haul, so that where I come to the column "Division of Revenue" the amount shown of $141.56 represents sixty per cent of $235.94 and the amount shown under the R. F. & P. "Divi-

sion of Revenue", $94.38, represents forty per cent of $235.94. These divisions of revenue have been compared with the expense and the aggregate expense.

By Judge Chesnut:

The difference between the expense and the aggregate expense is that the expense is on a per car basis and to get the aggregate expense I multiply the per car expense by the number of cars. There were four cars to Carlisle.

By Judge Soper:

The total expense is in the addition of the expense to the P. R. R. and the R., F. & P.

Mr. Beach: We amended our petition, you will recall, and this is responsive to the allegation of that amended petition. It shows the individual results as to the three petitioners, Baltimore & Ohio, Pennsylvania and R., F. & P. as to the 17,324 cars.

[fol. 2118] Witness (Examined by Mr. Beach): The results are sufficiently stated in the aggregate on the explanatory statement which precedes Exhibit No. 10, especially at the end of the explanation. The explanation, as I see it, runs to two pages, the first page on the lefthand side of the exhibit and the second page on the righthand side. I am on the explanation preceding page 1. That explanation taken from the exhibit shows the aggregate picture and as to the R., F. & P. which handled the entire 17,324 cars as an intermediate carrier, the aggregate revenues were less than the aggregate expenses in the sum of $1,259.56, this without taking into consideration any return on investment. The Pennsylvania handled 14,573 of these 17,324 cars and its aggregate expenses exceeded its proportion of the revenue in the amount of $65,578.90. The B. & O.'s revenue exceeded its expenses on 2,751 cars in the sum of $13,368.67. Insofar as that figure is concerned, it should be pointed out that a large volume of the total cars handled by the B. & O. moved to short haul points. 221 of them moved to Washington, D. C., and that will be gone into in further detail in connection with a later exhibit. That completes my discussion of the series of exhibits in this large book, exhibits Nos. 1 to 10, inclusive.

[fol. 2119] Third Day

Baltimore, Maryland, September 19, 1934.

Met pursuant to adjournment.

Present: The same parties as heretofore noted.

E. A. HODKINSON resumed the stand for further direct examination:

Examined by Mr. Beach:

Exhibit C-1 is similar in character to the Exhibits Nos. 2 and 2-A previously submitted with respect to Trunk Line Territory. These exhibits deal with Central Territory cars involved in this case. I have studied in connection with the single line hauls north and west of Cincinnati 4,662 cars which originated on the lines of the Atlantic Coast Line Railroad, the Florida East Coast Railroad and the Seaboard Air Line Railway, moving through Cincinnati, Ohio, Evansville, Indiana, Louisville, Kentucky, Limeville, Kentucky and insofar as the Louisville, Kentucky, gateway is concerned there are two sub-divisions, Jeffersonville, Indiana, and New Albany, Indiana, which would really be the gateways for divisional purposes dependent upon the distances in C. F. A. Territory to which the cars were consigned. Cincinnati is by far the most important gateway so far as Central Territory is concerned.

[fol. 2120] The purpose of this exhibit is to demonstrate the effect upon the carriers' revenue arising out of the application of the divisions prescribed by the Interstate Commerce Commission. The computations on this exhibit were prepared in exactly the same way as in connection with the similar exhibits Nos. 2 and 2-A.

Turning to page 77 of Exhibit No. 1, and beginning at the top of the page headed "Grand Recapitulation", the first line dealt with under the grand recapitulation is shipments originating on the Atlantic Coast Line moving to all of the roads involved in the study where single line hauls were all that were required, and covers the gateways of Cincinnati, Ohio, Evansville, Indiana, and Louisville, Kentucky. We have kept each gateway separate and the figures shown at the top of the page are transferred from the detailed pages preceding it. It is a fact that I have, under

this grand recapitulation, shown the Atlantic Coast Line cars separately, the Florida East Coast cars separately, and the Seaboard Air Line cars separately, by individual gateways. In the summary at the bottom of the sheet we make a grand recapitulation, or rather summarize the results for the various gateways. For example, the 2,796,371 car miles shown in the first column represents the sum of the car miles on the Atlantic Coast Line origin shipments via the various gateways. It is carried from the top of the sheet. Likewise, you have got the total for the Florida East [fol. 2121] Coast and the Seaboard Air Line, so that we have a grand summary which shows the net effect upon the revenues of the two sets of carriers. In the last line under the column headed "Revenue north of gateway as settled" the aggregate figure shown is $294,232.82. Under the Commission's decision the revenue of the northern lines is $285,064.02.

The difference between the revenue as prescribed by the Commission and the revenue as settled by the Central Territory lines on those 4,662 cars is $9,168.80.

I made an additional study covering the cars that moved north of Cincinnati and other gateways over multiple haul routes, but I did not reduce it to detail. There were 3,388 cars that moved in multiple line hauls. That is shown in the explanatory statement to this exhibit. I have not reproduced the details for those shipments. It appears preceding page No. 1 of the exhibit.

The relative costs for movement over multiple line hauls for the same distance as over a single line haul would involve three sets of carriers. If it is the same distance as the single line haul, that is if the distance is going to be comparable to the average haul of all of those cars to C. F. A. Territory, it would not be a very long distance. So, if you have got two or more lines in there, any approximation of costs could only be made by system average, and [fol. 2122] adding the expense of the three lines together for these short hauls would not give you even an approximation of the costs. The multiple route expense would be approximately the same as the single line route with the same haul except that you have the different conditions of the carriers to take into consideration.

By Judge Chesnut:

Breaking up the train from one line of road and putting it on another line of road might be compared to the intermediate service on the single line haul where they break up the train at different divisional points and reclassify it. A train moving from Florida to the northwest, consisting of fifty or sixty cars, is probably going over a great many lines and there will be a great many more shiftings of that train.

Judge Chesnut: What the northwestern roads or the northern central roads retained was $294,000.

Mr. Beach: That is corerct on these 4,662 cars.

Judge Chesnut: And what the Commission gives them under this order is $285,000?

Mr. Beach: That is correct on those 4,662 cars.

Witness (Examined by Mr. Beach): In addition to the single line hauls, for 8,050 cars on multiple line hauls the difference is $24,149.12. That is in the explanatory state-[fol. 2123] ment preceding page 1, in the last paragraph.

Q. It has been stated that the basis of the divisions which the Commission has prescribed give us more than the divisions that were in effect prior to November 9, 1928. Now, so far as these Central Territory cars are concerned, and bearing in mind this statement by Mr. Doss on page 1310 of the record, will you please tell me what the effect of the decision of the Commission is? At page 1310 of the record, Mr. Doss said that of these eight thousand odd cars that moved to Central Territory in the 1928-'29 season the Central Territory retained $17,575.82 more than they would have retained had the old rates remained in effect. Now, in the light of your study which you have alluded to heretofore, will you tell me what was the net effect of the Commission's prescribed divisions to the Central Territory points as compared with the basis of the divisions that were in effect prior to November 9, 1928?

A. Assuming the correctness of Mr. Doss' estimate that the revenue as settled by the Central Freight Association lines exceeded by some $17,000 the revenue which they would have obtained under the old rates, then the net result of the Commission's prescribed divisions to the 8,050 cars, that means that the Central Freight Association lines'

revenue under the Commission's prescribed divisions was some $7,000 less than it would have been under the old rates and divisions.

[fol. 2124] Before leaving Exhibit C-1, referring to the entire exhibit, the divisional factors fixed by the Commission in its decision applied to certain hauls and those divisional factors were equally applicable whether the shipment moved from Cincinnati to Cleveland, Ohio, or from Richmond, Virginia, to New York. The distance north of the gateway, whatever that gateway might be, was the thing that controlled; and there was absolutely no distinction as to the divisional factors anywhere in official territory.

Exhibit C-2: Exhibit C-2 is similar to Exhibit No. 1 which I submitted covering the carriers involved in the Trunk Line territory, and the purpose of the exhibit is to determine or to develop the unit car mile cost or expense and the unit expense for taxes per mile and for the return on investment. The exhibit was prepared in exactly the same way as my Exhibit No. 1 described yesterday, and the basic information shown thereon is taken from the same sources; that is, the carriers' reports to the Interstate Commerce Commission. I have included in that exhibit the Atlantic, Birmingham and Coast Railroad, the Chesapeake & Ohio Railway Company, including the Hocking Valley, the Chicago and Eastern Illinois, the Chicago, Indianapolis and Louisville, Cincinnati, New Orleans and Texas Pacific, the Cleveland, Cincinnati, Chicago and St. Louis Railway, including the Cincinnati Northern, the Erie Railroad, includ-
[fol. 2125] ing the Chicago & Erie, the Evansville, Indiana and Terre Haute Railway, the Louisville & Nashville Railroad and the Southern Railroad. The unit expense figures shown on that exhibit are carried forward to subsequent exhibits where I study the expenses assignable to the different movements, and the unit expenses are used to determine the carload expense or the per car expense. That exhibit contains data with respect to both northern and southern lines, and it includes the Southern Railroad, the Louisville and Nashville and other southern lines, and the unit expenses there developed are the same as the system unit expenses I have developed for other northern and southern lines in Trunk Line territory.

Exhibit C-3: Exhibit C-3 is somewhat different in form than exhibits Nos. 3 and 3-A, making the showing with re-

spect to Trunk Line territory, but it is essence the same kind of a study. It takes up less space to cover all the points in the previous exhibit.

This exhibit covers the single line hauls north of Cairo, Cincinnati, Evansville, Jeffersonville, Limeville and New Albany to various points shown for delivery by the Baltimore & Ohio, the Big Four which is the Cleveland, Chicago, Cincinnati and St. Louis Railway, the Chicago and Eastern Illinois Railroad, the Chesapeake & Ohio Railroad, the Chi-
[fol. 2126] cago, Indianapolis and Louisville Railroad, the Erie Railroad and the Pennsylvania Railroad. I confined this exhibit to single line hauls north of the gateways for the same reason that I confined the study covering single line deliveries in Trunk Line territory and single line hauls. That is, I wanted to avoid adding together the unit expense of two systems, both of which would reflect the average haul and there would be some criticism directed against consolidated expense figures because of the terminal situation.

To indicate how the exhibit was prepared, turning to page No. 1, Akron, Ohio, north of Cincinnati, is shown as 241 miles loaded haul. The empty haul is 205 miles, which represents a ratio of empty to loaded mileage of 85 per cent. The total mileage is 446 miles. In Exhibit No. 2, C-2, it will be noted that the per car mile expense is 10.56372 cents.

Multiplying that figure by 241 produces a result of $25.46 per car loaded. The ratio of empty to loaded is 85 per cent; and 85 per cent of $25.46 is $21.66, which represents the estimated expense incurred in handling the car empty. The aggregate of the per car loaded and the per car empty expense is $47.12, as shown under the column headed "Total." The car rental of two cents per mile, for 446 miles, the total mileage, is $8.92. The taxes per car mile basis are 0.70003 cents; and that figure is taken from Exhibit C-2. Multiplying that figure by 446 miles produces a per car ex-
[fol. 2127] pense of $3.12. The aggregate of the $47.12 for the operating expenses, the $8.92 for the car rental, the $3.12 for taxes is $59.16. We deduct from this figure the estimated transportation cost attributable to ice in bunkers, which amounts, at the weight of five tons, at 1.65 mills per ton of loaded miles, $1.99, leaving a net expense north per car, excluding the refrigeration, of $57.17. Exactly the same methods of computation were used for each of the destinations shown in the exhibit.

The data in this particular exhibit are carried forward to subseequent exhibits for the purpose of matching expenses and revenues north. There is nothing else in connection with this particular exhibit. That takes the cars that move to all destinations in Central territory over single line routes via those gateways.

By Mr. Hall:

When Mr. Lamb was on the stand, in talking about the car mile unit, he said, "You take on the Pennsylvania Railroad 60.71 per cent of their tonnage is products of mines which load 55 tons per car. That illustrates the difference between the loading of citrus fruit products and products of mines. It necessarily costs you more to handle a car loaded with 55 tons of products of mines, which is the Pennsylvania's average, than the loading of a car with 16 tons of citrus fruit." In connection with that statement, [fol. 2128] Mr. Lamb made the point that the effect of the high percentage of products of mines handled by the Pennsylvania Railroad was to increase their per car mile cost. And, as I remember his testimony, he said for that reason, among others, it was unfair to use the per car mile unit in comparing conditions north and south.

At page 1 of my Exhibit C-2, looking at the column headed "Chesapeake & Ohio Railway, including Hocking Valley," the percentage of coal handled by the Chesapeake & Ohio is largely in excess of that handled by the Pennsylvania Railroad. The Chesapeake & Ohio is one of the largest coal carrying roads in the country and, as I recall it, coal constitutes approximately 82 per cent of its entire tonnage. The operating expense per total freight car mile on the Chesapeake & Ohio Railway is 7.51555 mills. That total freight car mile expense, compared with the other similar unit expenses on lines both north and south which I have shown in my exhibits 1 and C-2, is lower than any unit car mile expense for any other carrier covered by those two exhibits; in some cases appreciably lower. I am referring to the figure under C. & O., opposite line 9, operating expense per total freight car mile.

I think that this demonstrates beyond the shadow of a doubt that coal traffic does not result in increasing your [fol. 2129] per car mile expense but, on the contrary, has the tendency to reduce it.

By Judge Chesnut:

Q. Might I ask you there, when you say it demonstrates conclusively, beyond a shadow of a doubt, that carrying coal does not increase revenue, have you not overlooked the possibility of a great many countervailing factors? For instance, suppose you were told that the C. & O. Railway is the best operated road in the country and that it runs in the most favorable territory, and that it collects very valuable freight which is expensively paid for in the rate carried; in other words, are there not a great many factors which may explain the low cost of operation of the C. & O., despite the fact that it carries a very heavy commodity?

A. I do not think that the C. & O.'s efficiency of operation should be held against them when it comes to the distribution of divisions, and with all due regard to what your Honor has said, I believe that this figure shows that carrying coal does not result in increased operating expenses.

Br. Mr. Hall:

What I was trying to say is that no broad and general conclusion can be drawn from what Mr. Lamb said yesterday because of the fact that the Pennsylvania Railroad's percentage of products of mines is 60 per cent, when in the case of the C. & O. Railway, where the percentage of prod- [fol. 2130] ucts of mines is over 80 per cent, its car mile expense is less than that of the Pennsylvania Railroad and less than that in many instances of southern railroads.

There are no strictly single line hauls south of Cincinnati so far as this Florida citrus fruit traffic is concerned. In order to contrast expenses north and south I could not make an exact computation of the expense south. Neither could I make such a clearcut picture insofar as the shipments destined to Central territory were concerned from the south as from the north, for the reason, first, that in every instance multiple hauls were involved and, secondly, there were so many routes involved south, and the statement, the traffic study as compiled by Mr. Doss, although very, very clear, involved literally hundreds of routes. There would be a variation in the route south, where the route in the north might have been constant, so that we did not get the cleancut picture, such as we have through Trunk Line territory. Practically all Atlantic Coast Line

cars move in a single line haul up to Richmond. The Seaboard Air Line cars move largely in single line hauls up to Richmond. We have hundreds of routes from Florida into Cincinnati or Cairo or Evansville; so that the best that I figure that we could do was to estimate a per car expense, and do it on the basis of adding together the expense of the individual lines that participated in the transportation up to the gateways; and also with this further limitation, that [fol. 2131] in order to show a contrast between expenses and revenue for the southern lines it was necessary to determine the sub-division of the rate between the southern lines south of the gateway. Now, that ordinarily is a matter that is peculiarly within the knowledge of the southern roads. It is not generally known by the northern roads, any more than we would expect the southern roads to know exactly how we sub-divide the revenue from Richmond to Boston, let us say, between the R. F. & P., the Pennsylvania and the New Haven, so that the study was necessarily limited by reason of those circumstances.

I could not answer affirmatively that there were certain routes that were perhaps more predominantly used than others. There certainly were some routes that were used to a greater extent than others; but I cannot tell you just what those routes were. But those particular routes that are covered by my C-4 were used to quite a considerable extent.

Jessup, Georgia, is the junction point between the Atlantic Coast Line and the Southern. Chattanooga is the junction point between the Southern and the C., N. O. & T. P. That is the main line of the Southern between Jessup and Chattanooga. Quite a number of cars move over that particular road.

I first determined the per car mile unit expense for these [fol. 2132] individual lines which form segments of the route south of Cincinnati, or other Ohio River gateways, and the detail of those expenses or the detail on which those individual expenses are computed, is shown in my Exhibit C No. 2.

I think in computing the expense for the multiple haul south of Cincinnati that we have over-stated it because of the terminal factor situation, and further because of the fact that the system unit costs by which this expense is built up reflect an average haul very much less than the

haul on this citrus fruit. If you would like to go into the comparison of the hauls on citrus fruit as compared with the average haul on all freight at this time, I shall be glad to give those figures. There are several routes used in this Exhibit (C-4). The one taking up most of the comparisons is Atlantic Coast Line origins where the Atlantic Coast Line takes the shipment from the Florida origin to Jessup, Georgia, at which point it delivers it to the Southern Railway, and that line transports it from Jessup, Georgia, to Chattanooga, Tennessee. At Chattanooga, Tennessee, the Southern Railway delivers the car to the C., N. O. & T. P., and that line transports it from Chattanooga to Cincinnati. Now, regardless of the point of origin in Florida, the service of the Southern Railway from Jessup to Chattanooga, and the C., N. O. & T. P. Railway from Chattanooga to Cincinnati would remain costant. The distance from Jessup to Chattanooga is 389 miles. And that is the [fol. 2133] haul which the Southern Railway obtained on this citrus fruit traffic destined to Central Freight Association territory. As compared with this average haul of 389 miles on citrus fruit, the Southern Railway's average haul on all traffic was 189.46 miles. That is the system average. The C., N. O. & T. P. mileage from Chattanooga to Cincinnati is 338 miles. Its average haul on all traffic is 213.24 miles. These comparisons that I am giving you for the average haul on all traffic are for the year 1929, just as this citrus fruit traffic average haul is for the same year. The Atlantic Coast Line Railroad figures cover various Florida origins. Its shortest haul from Florida origin to Jessup, Georgia, is 204 miles, as shown on this exhibit. Its longest haul is 330 miles. The average haul on all traffic for the Coast Line is 173.16 miles.

The next example that I come to is Item No. 55, on page 2, and that covers the route, Atlantic Coast Line, from various Florida origins to Waycross, Georgia, at which point the shipment is delivered to the A., B. and C—Atlantic, Birmingham and Coast Railroad—and that line transports it to Atlanta, Georgia. Waycross, Georgia, to Atlanta, Georgia, A. B. C. Railroad, the distance is 279 miles as compared with an average haul on all traffic of 162.68 miles. From Atlanta, Georgia, to Chattanooga, Tennessee, the movement is via the Southern Railroad, and [fol. 2134] that is 153 miles. That is less than the average

haul on all traffic of 187.46 miles. The third carrier in that particular route is the C., N. O. & T. P. from Chattanooga to Cincinnati. I have already given those figures. Another route is from Florida origins to Montgomery, Alabama, the Atlantic Coast Line performing the haul from Florida to Montgomery. That is Item 72. And the L. & N. performs the haul from Montgomery, Alabama, to Cincinnati. The Atlantic Coast Line haul in this case is 479 miles from Haines City, Florida, which is greatly in excess of this average haul of 173 miles. The haul of the L. & N. from Montgomery, Alabama, to Cincinnati, Ohio, is 599 miles, as compared with an average haul on all traffic of 213.32 miles.

Going to shipments originating on the Seaboard Air Line, the Seaboard Air Line transports shipments from the Florida origins to Everett, Georgia, at which point it delivers the car to the Southern Railroad. The Southern Railroad haul from Everett, Georgia, to Chattanooga, Tennessee, is 409 miles. That is Item 79, page 3. That is in excess of the average haul of 187 miles. The C., N. O. & T. P. mileage from Chattanooga, Tennessee, to Cincinnati has already been covered. The average distance—not the average distance, but the distances from the Seaboard Air Line origins covered by this exhibit range from 231 miles to 316 miles, as compared with the Seaboard's average haul [fol. 2135] on all traffic of 192.74 miles.

Turning to Lake Wales Item 134, the last example is Seaboard Air Line origins. From Florida the Seaboard performs the haul to Montgomery, Alabama, at which point the cars are delivered to the L. & N. Railroad, that line transporting the shipment from Montgomery to Cincinnati. These are actual shipping points, too, that were taken from the traffic studies, shipments actually moved from these points. The Seaboard Air Line distances range from a low of 485 miles to a high of 582 miles. This is to be compared with its average haul on all traffic of 192 miles. The L. & N. haul from Montgomery, Alabama, to Cincinnati is 599 miles, and I have already compared that figure with the average haul on all traffic.

My object is to point out first, that the system unit expense as used for each of these individual carriers in compiling the aggregate expense from the point of origin in Florida via the various routes, up to the northern gate-

way, the unit figure is predicated or reflects the average haul on all traffic to those particular lines. And as the Commission has pointed out frequently, and as is well known, in any case where you are comparing expenses or revenues, if you please, on a car mile basis or on a ton mile basis, predicated on a system average, if the haul in connection with which you make your comparison exceeds [fol. 2136] the average haul, then the terminal expense is exaggerated. That is for the reason that your terminal expense remains constant, regardless of the length of the haul. If you had a haul of only 50 miles—this second figure—and I am not giving it as a figure that represents the difference between the terminal expense and the line haul expense, but I am giving it for a ready understanding of the point that I am trying to make. For a haul of 50 miles the terminal expense might constitute 50 per cent of the total expense, and the line haul expense 50 per cent. If you increase that haul to 200 miles, your terminal expense remains constant, but with the longer haul it becomes a somewhat lower proportion of the total charge, so that the influence of the terminal is gradually getting less and less as the haul increases, and for that reason there should be not as much allowance for terminal expense in connection with the haul which greatly exceeds the average haul on all freight as there is in the average haul itself. So that in using this system unit expense predicated on the average haul to each of these carriers in this computation, and then further adding the expense of three or four carriers together, I am getting an expense for them which to my mind is considerably over-estimated.

By Judge Soper:

This exhibit has to do with the expenses of the southern [fol. 2137] lines from the basic points to the gateways. I am here endeavoring to show what it costs the southern roads, as in a previous exhibit it showed what it costs the northern roads, with the reservation that the expense that I am showing to the southern roads is greater than the actual expense because of the situation and circumstances that I have pointed out to your Honor, and necessarily because of the great number of routes south I had to confine my showing to typical routes.

By Mr. Beach:

Referring to page No. 1 of Exhibit C-4, the mathematical computations are exactly as outlined in connection with the previous exhibit. I need not repeat those, I think. From Jessup, Georgia, to Chattanooga, Tennessee, the expense of $87.41 per car, which is the total expense per car, excluding refrigeration, will remain constant to the Southern Railway, regardless of the point of origin in Florida. That is likewise true of the expense of $65.38, the expense of the C., N. O. & T. P. from Chattanooga, Tennessee, to Cincinnati, Ohio. We therefore confine these further calculations to computing the expense of the Atlantic Coast Line for the respective hauls.

By Judge Soper:

I said the expense to the Southern Railway and the [fol. 2138] C., N. O. & T. P. Railway would remain constant regardless of the point of origin in Florida. The only expense figure that would vary would be that of the Atlantic Coast Line for its haul from the Florida origin up to Jessup, Georgia, because of varying distances. So that the first two items at the last column of the exhibit, $87.41 and $65.38 would remain constant throughout this page of the exhibit.

From Avon Park, Florida, to Jessup, Georgia, the distance is 320 miles. Following all the computations that I have made heretofore, the same method of computation as I have made heretofore, the expense of the Atlantic Coast Line from Avon Park, Florida, to Jessup, Georgia, is $67.97. Adding the $87.41, the $65.38, and the $67.97 together produce a total figure of $220.76. The next point is Dundee, Florida. The expense to the Atlantic Coast Line with the haul of 288 miles from Dundee, Florida, to Jessup is $61.15, which is the fifth line, the last column in Exhibit 1. Adding the $61.15 to the $87.41, the first line, and the $65.38, the second line, produces the expense of $213.94. Likewise, in connection with each other Florida origin, we determined the expense for the Atlantic Coast Line and then add that expen[illegible] to the two first items at the top of the exhibit to produce the total figure shown. That same procedure is followed with respect to each Florida origin until you change to a different route, and I have indicated the different

[fol. 2139] routes in my prior testimony. But when it comes to the different routes, wherever the haul remains constant, we have kept that figure constant and simply built up our aggregate expense in the same manner that I have explained in connection with building up the expense for the Atlantic Coast Line, the Southern and the C., N. O. & T. P. Railway. In other words, those intermediate carriers get the car at the same junction point, regardless of where the car originated.

Turning to my Exhibit No. C-5, for the reasons previously explained in connection with Exhibit No. C-4, I was unable to depict the entire southern situation insofar as a comparison of revenue and expenses was concerned on all of the cars moving into the northern gateways. I was compelled, therefore, to rely upon a per car comparison of revenue and expenses. Before this could be properly done, however, it was necessary first, to prepare a statement which would show the revenues which would accrue to the lines north and south of various gateways, Cincinnati particularly, under the divisions prescribed by the Interstate Commerce Commission. And this has been done in connection with origins names on Exhibit No. C-4, as to shipments moving via the routes south of Cincinnati, covered by the same exhibit. These are actual shipments. The weight, the rate, the charges and the revenue north as settled were taken from the southern roads exhibits. The arbitrary [fol. 2140] revenue is obtained from the division sheet published jointly by the northern and southern lines. The percents are those arising out of the divisional formula, the divisional factors prescribed by the Commission. And the statement shows as to various East Florida origins to various representative Central Freight Association destinations, the per car revenue both north and south of the gateway. And this per car revenue shown on Exhibit No. C-5 will be transferred to the next exhibit where a comparison is made of the per car revenue north compared with the expense north, and the per car revenue south compared with the estimated expense south, which expense, as I have previously indicated, is somewhat overstated. From a southern origin standpoint that would be regarded as typical. I cannot speak for the southern roads, of course, but from southern origins in Florida on routes that operate up to Cincinnati.

By Judge Soper:

This exhibit is simply designed to show on a per car basis the revenue which would accrue to the northern roads and the southern roads, respectively, and the total of four cars and the total revenue north as settled, $236.32, does not enter into the picture at all and, as a matter of fact, should not have been shown on the exhibit. It simply leads to confusion. It can be determined from the exhibit. The revenue north as settled is $226. and the divisions under the [fol. 2141] I. C. C. provision would bring about that in that particular case, and also the last one, from Kissimmee, Florida, there is a slight increase, but in the average case it is the other way, as shown in Exhibit C-1, and that proves we got a reduction on the whole rather than any increase.

By Mr. Beach:

Turning to my Exhibit C-6, that exhibit deals with the same cars as were used in the preceding exhibit, and it is prepared for the purpose of contrasting the revenues under the Commission's decision, both north and south, with the estimated expense per car both north and south. As in the previous exhibit, it was necessary for me to confine this to a per car basis. As an example, for Avon Park to Chicago I show the estimated expense per car south $220.76. That is the figure that is transferred from page 1 of Exhibit C-4. The revenue under the Commission's decision per car is taken from page 1 of Exhibit C-5. The revenue accruing to the southern lines under the Interstate Commerce Commission decision is $298.24, leaving a difference between expense and revenue, the revenue being the higher figures, of $77.48. That particular column represents the surplus over and above the estimated expense per car shown on the exhibit. Going to the northern side of the picture, the estimated expense per car is $71.85. The revenue under the Interstate Commerce Commission decision per car is [fol. 2142] $64.64 so that the difference between expense and revenue, expense being the greater, is $7.21. That I think is sufficient by way of illustration of the exhibit.

By Judge Chesnut:

Q. Before you pass from that take the next line which gives you a result of $41 surplus to the northern lines over

and above the estimated expense. Then, following down through that column we find that surplus and deficit about alternate in a number of instances, about equally divided. What is the reason for such a wide range of difference between different shipments, that is to say, why should the northern roads on a shipment from Avon Park to Chicago lose $7.21 while from Avon Park to Dayton, Ohio, they made over and above expenses $41?

A. That is because of the fact, Your Honor, that Dayton, Ohio is very close to Cincinnati and in the construction of the divisional factors the Commission provided that the same factor would apply for hauls up to 240 miles.

Q. How do you work that out. I believe you are referring to the Commission's opinion and the appendix which appears on page 762?

A. That is right.

Q. Show me mathematically how you work that out? You say that whereas the southern line haul is 600 miles or less and the northern haul is 240 miles less, the so-called [fol. 2143] scale of southern numbers is 161 comparable to the northern factor of 44?

A. That is correct.

Q. How do you apply that? Give some detailed explanation of your last answer?

A. My last answer ran to the minimum provision, Your Honor, that is regardless of the length of haul in the north, so long as it is less than 240 miles we get a divisional factor of 44. If the haul north was only forty miles, we would still get that factor of 44.

By Mr. Beach:

It is a fact that the distance to Dayton is between fifty and sixty miles, but under the minimum division prescribed by the Commission in its order for any haul, whether it is five miles, or one hundred miles, as long as the minimum haul is less than 240 miles we get that minimum factor [fol. 2144] of 44.

By Judge Way:

We take these factors north and south as prescribed by the Commission. We select the factor for the miles north. That for 240 miles is 44. Assuming that the factor of the

southern lines is for 600 miles or less, that would be 161. We add the 161 and the 44 together, which produces 205. Divide that into 161 and you get the southern percent. Divide it into 44 and you get the northern per cent, and then after we determine that per cent north and south, respectively, via Richmond, we deduct three from the northern per cent and add that three to the southern per cent. With that exception we get as much for carrying the freight from Potomac Yards to Baltimore as we would if Baltimore were 240 miles away, assuming that it originated at the same point in the south. The per cents will vary with the southern roads insofar as the southern origin miles go.

By Mr. Beach:

I will have some additional testimony on the question of that minimum provision and its effect.

By Judge Chesnut:

The minimum proportion which the northern lines would receive would always be the factor of 44 but the application [fol. 2145] of that factor in conjunction with the southern factor would result in a per cent very much less than 20 per cent in numerous instances.

By Judge Way:

There is not any case where the northern roads will receive less than the 44 factor in that table but there are cases where the application of that factor to the southern factor will produce a per cent less than 20 per cent for the northern roads. The extreme would be 240 miles or less north, of which the northern roads would get a factor of 44. The extreme mileage in the south is 1,000 miles for which the southern lines would get the factor of 215. Adding the 44 and the 215 together you get 259, and dividing it into 44 produces 17 per cent for the northern lines.

By Judge Chesnut:

I do not mean to say that you can shift any one of these figures in the lefthand column to those in the righthand column. They are related to each other according to the mileage in the south and the mileage in the north, respectively. They do not operate on horizontal lines. I am

referring to page 762. If the haul in the south were as much as 1,000 miles and the haul in the north was less than 240 miles, the percentage of the joint rate which the northern lines would get would be 44 divided by 259. It is 44 for the northern factor and on the lefthand side of the table the [fol. 2146] southern factor is 215, and the proportion is 44 divided by 259. That would be 17 per cent. That is providing for the disposition of the fractions. It is not exactly 17 per cent but we will call it 17 per cent in railroading. The minimum percentage that the northern lines get is approximately 17 per cent. To get the maximum, taking 700 miles in the north and 600 miles in the south, the factors will be 161 and 99 and you would add 99 and 161, getting 260, and the percentage would be 99/260 which is roughly about forty per cent. The greatest variation possible is that for the longest haul that the south can have and the shortest haul that the north can have, the north would get not less than 17 per cent and for the shortest haul the south can have and the longest haul the north can have the north can never get more than 40 per cent.

By Mr. Beach:

In every instance covered by this exhibit the southern lines received a substantial amount in revenue over and above the estimated expense per car, although that estimated expense per car, as I previously stated, is an overestimate, and in the case of the northern lines I had for individual hauls deficits in some instances and surpluses in the others.

Turning to my Exhibit C-7, I have undertaken to bring together the study that I have made in connection with [fol. 2147] 17,324 cars to Trunk Line territory on the Baltimore & Ohio and the Pennsylvania Railroads and the 4,662 cars representing the single line hauls to destinations in Central territory. That makes an aggregate of 21,986 cars. In this particular exhibit I have taken each destination which has received a shipment by a single line haul north of either the Virginia cities or Ohio River gateways, have indicated the delivering road, have shown the per car expenses, the aggregate expenses, the total revenue under the I. C. C. decision and the deficit or surplus, as the case may be. The figures shown on this exhibit are all taken

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from preceding exhibits. The estimated expense of $57.15 from Cincinnati to Akron, Ohio, is taken from my Exhibit C-No. 3. The aggregate revenue is taken from C-2. The aggregate expense is a mathematical computation obtained by multiplying the per car expense by the number of cars. The detailed information shown as to shipments moving via the Richmond gateway are taken from Exhibits Nos. 3-A and 2.

The recapitulation shown on page eight of the exhibit brings forward the sub totals of pages one to eight. It shows the aggregate estimated expense north of the gateway on the 21,986 cars to be $1,533,164.18. The total revenue north under the Interstate Commerce Commission's decision is $1,532,301.54 and the final result is that the northern lines, that is these lines that participated in the [fol. 2148] single line hauls north of the gateway, their expenses exceeded the revenue which they would receive under the Commission's decision in the sum of $862.64 and this figure is the amount by which they failed to meet their expenses of operation and taxes and does not make any allowance for return on their investment.

By Judge Soper:

On page 8 of my Exhibit C-7 I have a total of 21,000 cars. That is made up of the 17,324 cars that I used in my first series of exhibits and 4,662 cars in Central Territory. There is no separate summary for the 4,662 cars. If I had a summary it would show an approximate surplus of $52,000.

Q. If that surplus was applied to the investment, what rate of return would it show?

A. We have no surplus, Your Honor.

Q. You had a surplus on your 4,662 cars. I don't know whether you caught my question, or not.

Mr. Beach: We will have rate of return figures later on showing the rate of return by individual lines, and so on, on the car mile basis, gross ton mile basis, and so on. We concede, of course, that the effect of combining these two is that a deficit in one territory is wiped out by the apparent profit in the other territory but now our next step we are heading into is to show the effect of this minimum pro-

vision and that when you get away from that it is there where the percents that are prescribed by the Commission begin to hurt.

[fol. 2149] H. G. BARBOUR, a witness on behalf of the petitioners, being first duly sworn, testified as follows:

Examined by Mr. Hall:

I am H. G. Barbour, Assistant General Manager of the Erie Railroad at Youngstown, Ohio. I have been employed by the Erie Railroad since October, 1914, as clerk, accountant, yard master, train master, division superintendent and assistant general manager. My jurisdiction is from Hornell and Buffalo, New York, to and including Chicago. I was not a witness before the Interstate Commerce Commission in Docket 24069 dealing with rates on citrus fruits to points in official territory. Neither was I a witness in the part of the proceeding which dealt with rates on citrus fruit from points in Florida to points in Central Freight Association territory. I have examined and am familiar with Hodkinson Exhibit No. C-1 offered in this case, covering movement of citrus fruit from Florida to points in C. F. A. territory during the season 1928-1929. That exhibit shows that our company received the great bulk of citrus fruit handled by it to destinations in C. F. A. territory at the Cincinnati gateway, moving principally to Buffalo. The movement in the 1928-1929 season as shown in this exhibit is in accordance with my knowledge of the general cost of movement of citrus fruit over our line to points in C. F. A. territory in subsequent seasons. I am familiar [fol. 2150] with traffic conditions on that portion of our line from Dayton to Buffalo which is principally used in handling citrus fruits from Florida to C. F. A. territory.

From Cincinnati, Ohio, to Dayton, Ohio, traffic is handled for the Erie Railroad Company under trackage agreement, and settlement made with the Baltimore & Ohio Company by our Auditor of Revenues, traffic being delivered in our yard by the Baltimore & Ohio at Dayton, Ohio. It is built up in trains at Dayton by switch engines of the Erie Railroad Company and handled over the Erie from Dayton, Ohio, to Marion, Ohio, a distance of 83.6 miles. This is a single track operation, with exception of from Dayton to

Cold Springs, a distance of 19 miles, where we have a double track operation by using the Big Four Railroad as an eastward track and the Erie Railroad as a westward or southerly track. This operation is joint with the Big Four, the Erie owning one track and the Big Four the other. The ruling grade eastbound being 0.86% and westbound 0.92%. The ruling grade in eastward direction being approximately five miles long, westwardly approximately six miles long.

The line from Marion to Kent, Ohio, is double tracked, with a rather dense traffic, a distance of 113.4 miles, on which line there are many bad grades in both directions and some heavy industrial towns, namely, Wadsworth, Barberton and Akron, Ohio. There are nine grades in 113 miles, ranging from 0.85% to 1.07%, these grades varying [fol. 2151] in length from two miles to a distance of five miles. In a westwardly direction there are relatively the same physical difficulties as exist in an eastwardly direction, which very greatly restrict the tonnage that can be handled by our largest locomotives.

From Kent, Ohio, to Meadville, Pa., a distance of 89.1 miles, the line is double tracked for a distance of 26.7 miles east from Kent and from that point to Meadville it is a single track line over which our main line freight traffic is moved. The ruling grade of this line for eastward trains is 1.13%, which is located in single track territory. It is about a mile and a half long. There are eight grades on this particular piece of railroad ranging from 0.75% to 1.13%, and the length of these grades range from a mile in length to five and a half miles. The ruling grade of 1.13% is one mile long. There are many grades in the territory with a rise of less than 0.75%, but trains have to be loaded based on the maximum tonnage the engine can handle over the ruling grade.

From Meadville to Buffalo, a distance of 141.9 miles, the line is double tracked from Meadville east to a junction known as Waterboro, a distance of 83.3 miles, and from Waterboro to Buffalo, it is a single track line. The ruling grade on this line for eastward trains is 1.25% for a distance of three miles, and for westward trains the grade is [fol. 2152] 2.5% for a distance of 4.6 miles, making it necessary to use two helper engines on these grades in both directions. The distance from Waterboro to Buffalo, which is single track, is 58.6 miles.

In Buffalo, it is necessary to switch out the perishable freight from the trains in which it arrives, and that for local placement at Buffalo has to be run special to the produce markets for an early morning delivery. Because of heavy grades, especially on the line between Marion, Ohio, and Meadville, Pennsylvania, in which territory we operate the same kind of locomotives that are operated on other main line Divisions of the Railroad that do not have the heavy grades, our train tonnage is very much less than on other main line Divisions, in fact, it is about one-half the tonnage that can be and is handled on the Division immediately west of Marion, Ohio, to Chicago where a much smaller type of engine is operated. Consequently our expenses in the territory between Dayton and Buffalo are greater than other parts of the railroad, and greater than our system average expense.

I am familiar with the service performed in connection with the handling of all traffic generally as well as with the service performed in the handling of citrus fruits and other perishable freight from Cincinnati, or Dayton, rather, to destinations on our line in C. F. A. territory. Speaking [fol. 2153] from my operating experience, the cost of handling commodities increases in proportion to the amount of service performed in connection with the handling of that particular commodity. The handling of citrus and other perishable freight is more expensive than the handling of the general run of traffic.

Perishable freight generally has to be serviced enroute, which requires considerably more switching and terminal service in the making up and breaking up of trains and the proper classification. It must be handled on a very much faster schedule than the general run of other commodities, which requires more force to handle at the terminals, with a corresponding reduction in the tonnage given a train of perishable as against slower moving freight, and finally, at destination, as a general thing, it must be placed by a certain hour in order to effect delivery at the market so that the commodity can be sold on the market of that day's schedule arrival, or unloaded by the consignee on schedule. This requires special handling at destination, because generally the unloading or disposal of the perishable freight is scheduled by the consignee, based on the advertised schedule of the railroad. This is not true of the general run of freight.

Figures were furnished to Mr. E. A. Hodkinson for use in preparation of his exhibits showing the ratio of empty to loaded refrigerator car miles on the Erie for the six year [fol. 2154] period 1928 to 1933, inclusive. The total refrigerator car mileage on the Erie system during this six year period amounted to 492,738,198 miles loaded, 423,060,533 empty, or a total of 915,798,731 car miles. Of the total refrigerator car miles for this six year period, 46.19% was empty, or in other words, the empty mileage was within 3.81% of being as great as the loaded mileage. The great percentage of empty mileage to the total mileage is due to many things, but principally to the peculiarity of the refrigerator car, which is not adaptable to all types of loading as a box car would be. Secondly, during the heavy loading of fruit, it is necessary that the empty refrigerator cars be expedited back to the loading territories, because there is not a sufficient supply of this type of equipment within the United States to permit the slow movement of these empty cars or general utilization of them for all types of traffic, if they could be so used. It must also be recognized that citrus and other perishable fruit and vegetable traffic is seasonal in various sections of the country in which they are produced; for instance, in the Florida territory, there is one season; in the Texas territory, another season; on the West Coast, still another season; and in the northwest, another season, so that the supply of these cars usually precedes the arrival of the seasons in the various sections of the country.

[fol. 2155] Coming back to the Hodkinson Exhibit C-1 and the subsequent exhibits including C-3, where the ratio of empty and loaded refrigerator car miles is shown in percents, I have made no attempt to work out the percents based on these figures that I gave you just a moment ago. My figures are based on all refrigerator cars regardless of the commodity.

Cross-examination.

By Mr. Gwathmey:

Taking the height of the Florida citrus fruit shipping season, I cannot give you the average number of cars of Florida citrus which my line handles per day out of Cincinnati for all destinations, but the exhibit indicates, I think, approximately fifty cars during the season through the

Cincinnati gateway to a single line haul destination on the Erie, fifty cars during the whole season.

By Mr. McGehee:

The Pennsylvania has a line from Cincinnati to Buffalo. I am not familiar with operating conditions on that line and know nothing about it. We do not receive at Cincinnati any citrus fruit from the West to be transported to Buffalo. That is all received at points west of Marion, Ohio. We do not receive any at Cincinnati from the southwest.

[fol. 2156] E. A. HODKINSON resumed the stand for further direct examination.

Examined by Mr. Beach:

Exhibit C-8 is a statement which shows as to the 21,986 cars which were all the cars that were received at either the Virginia or Ohio River crossings for single line haul deliveries north thereof during the 1928-29 shipping season, the number of cars, miles and total car miles arranged in distance order. It also shows that the average haul for each of the cars covered by this study is 295 miles. That figure is obtained by dividing the total car miles of 6,481,807 by the total cars, 21,986. We start with 52 miles and then follow on by distance. I make a sub-total for the cars that travel distances from 52 to 116 miles. That sub-total is shown on the lefthand column of the exhibit and there were 1,253 cars which moved for distances of 116 miles and less, the shortest distance being 52 miles. The total car miles is 127,794. The figures shown in the sub-total will be transferred to my next exhibit. The object of this exhibit was to show in a general way the number of cars that moved for distances of 240 miles and less but no total has been made as to those cars. They, however, are very much less in number than the cars which moved for distances of over 240 miles. The greatest movement, as will be noted from [fol. 2157] the statement, was for a haul of 346 miles, 8,380 cars to New York City. The number of cars was taken from Exhibit C-7, and the miles and total car miles from Exhibits 4-A and C-1.

The loaded or weighted average haul of these 21,986 cars was 295 miles but that includes, as to 17,324 cars, the haul

of the R., F. & P. from Richmond to Potomac Yards so that the average haul north of Potomac Yards would be very much less than 295 miles. I will develop that in a subsequent exhibit.

In Exhibit C-9, consisting of three pages, I have contrasted the estimated expense with the revenues accruing to lines north of the Virginia and Ohio River gateways. The revenue shown is the revenue which results from the application of the Commission's prescribed division. The figures shown in the column "Total Revenue North under I. C. C. decision" are copied from Exhibit C-7. The estimated expenses north of the gateway are copied from Exhibit 4-A. This exhibit shows, as to the 1,253 cars, that the difference between the estimated expense and the revenue is a surplus of $39,644.92. That is shown at the bottom of page 2 of that exhibit. Of course, by surplus I mean the amount by which the revenue which would accrue to the northern lines under the Commission's decision exceed the aggregate estimated expenses north of the gateway. This [fol. 2158] exhibit is summarized on page 3. Certain of the pages showed a net surplus while some of the other pages showed a deficit at the bottom, and I have brought forward from Exhibit C-7, according to the pages indicated there, the particular pages upon which a surplus was shown and that surplus aggregates $77,864.11. The statement that $39,644.92 equals 50.92 percent of total surplus is a mathematical computation. The surplus shown on Exhibit C-9 is $39,644.92. I then compared that with the total surplus shown on Exhibit C-7 and find that $39,644.92, the amount of the surplus shown on this exhibit, equals 50.92 percent of the total surplus shown on Exhibit C-7. I did that to show that the major portion of this surplus applies in connection with short hauls which are affected by the minimum provision about which I spoke this morning.

The total deficit shown on Exhibit C-7 is $862.64. If we had eliminated from that particular statement the 1,253 cars covered by this exhibit there would have been produced on Exhibit C-7, instead of a deficit of only $862.64, a deficit of $40,507.56 which shows the effect and the vital effect that these short hauls have insofar as the production of surplus is concerned. In other words, if it had not been for this minimum provision catching so many of these short haul destinations the Commission's order would have been even

more drastic in its effect on the northern lines than it has [fol. 2159] been.

Judge Chesnut: What legal significance do you draw from that, Mr. Beach?

Mr. Beach: We are alleging confiscation for individual hauls, for individual lines, and in the aggregate. We are disclosing the entire picture to you. In formulating any scale of divisional factors each one of those scales may have some sort of a gradation. You may start at the right point but you may go up too slowly in increasing your factors with increasing distance. Even assuming that the minimum provision here may be all right, when you get beyond that then your divisional factors are very drastically low and that is the point there; and if it were not for the effect of this minimum provision applied to these fifty, sixty, eighty or ninety mile hauls which show a surplus and where the cost is, of course, correspondingly under-stated because of the fact that you are applying system units which have a much longer haul, you have the picture as Mr. Hodkinson has indicated there of a deficit of $40,000 rather than a deficit of $800.

Witness: I would like to call attention to the fact that the total number of cars covered by Exhibit C-7 was 21,986. The 1,253 cars covered by this exhibit equal 5.70 per cent of the total so that it is only as to 5.70 per cent of the total [fol. 2160] cars that we produce a surplus of over fifty per cent of the total surplus. The total miles made by these 1,253 cars only equals 1.97 per cent of the total. I think that your remarks, Mr. Beach, as to the well recognized principle that in any divisional scheme some minimum proportion must necessarily be made for the short haul carriers and that in applying the system unit expenses which reflect the very much longer average haul than these short hauls, and to that extent the expenses for the short hauls are understated, covers the situation.

By Judge Soper:

By the use of the car mile basis I get a figure for the cost of these short hauls which is actually very much less than the cost of those hauls. As to whether the surplus which I have indicated here of $39,000 for 1,253 cars is an actual surplus, I have no idea as to how much the exaggeration

is but there is quite a little exaggeration there. If we could more nearly approximate the expense of handling shipments for these shorter distances, having in mind the expensive terminal situation, our expense per car would be materially in excess of the expense per car which we have shown, and consequently the surplus would be reduced to that extent.

By Mr. Beach:

It is an indicated surplus on the basis of the unit that [fol. 2161] I have applied here but not an actual surplus, in fact, if we could more nearly approximate the actual cost. But taking into consideration both the very short hauls and the somewhat longer hauls than your average, a weighted average of all the hauls, you come pretty close to getting the true picture except that the longer hauls in the average are fewer in number than the shorter hauls on the average.

By Judge Soper:

In applying the system figures, based on the average haul of all traffic to hauls in excess of that average haul, you have an overstatement of the cost on an average car, but I doubt if an overstatement of the cost for a longer haul would be quite so large as the understatement in the cost for the shorter hauls. When you take into consideration both the short hauls, the somewhat longer hauls and the long hauls and get an average of all and that approximates the system average I think you come pretty close to having a true picture. That is illustrated by Exhibit C-8 where it shows the weighted haul is less than 295 miles. In fact, I have shown that in the case of the Pennsylvania the weighted haul is slightly in excess of the average, whereas for the Baltimore & Ohio the average haul on citrus fruit is less than the average on all traffic.

By Mr. Beach:

Exhibit C-15 is a statement which shows the average [fol. 2162] haul on each loaded car handled by the Pennsylvania Railroad and the Baltimore & Ohio Railroad for single line haul deliveries on citrus fruit traffic which move during the 1928-'29 season and on all traffic for the calendar year 1929. There were 18,411 cars handled by the Pennsyl-

vania Railroad, total car miles of 4,064,235, an average haul on each car of 220.75 miles. The average haul on all traffic for the Pennsylvania was 210.17 miles but the Baltimore & Ohio, which company handled 3,009 cars, the average haul on each of those cars of citrus fruit was 112.81 miles while the B. & O. average haul on all traffic was 190.22 miles. This exhibit confirms the statement that I have made just previously to the effect that the Pennsylvania average haul on citrus fruit very closely approximates the average haul on all traffic and that the average haul of the B. & O. on citrus fruit was considerably below its average haul on all traffic.

In determining this average haul on citrus fruit I used cars that were delivered to destinations on the Pennsylvania Railroad only, and the same way with the Baltimore & Ohio. They are the same cars that are involved in my exhibit No. C-7. I have the source of this information indicated on the bottom of this exhibit as No. 2 and C-7. The distance from Potomac Yard to New York via the Pennsylvania is 236 miles and the distance from Potomac Yards to [fol. 2163] Philadelphia is 143 miles. Potomac Yards are on the south side of the Potomac River between Alexandria and Washington.

I feel that the use of the 1929 statistics produces a fairly typical result.

I have had a statement prepared, Exhibit 1-A, consisting of three pages and on this statement I show the per car expense for the year 1929, for the five year period of the years 1928 to 1932, and for the ten year average from 1923 to 1932. The detail from which the summary page one is prepared is shown on pages two and three, page two covering the five year average figure and page three the ten year average figure. In arriving at both the five year and the ten year average I took the investment in road and equipment for each of the five years and added it together; I took the total operating expense for each of the five years and added them together; I took the operating expenses assignable to freight and passenger respectively for each of the five years and added them together; I added together the freight train car repairs, depreciations and retirements for each of the five years; the railway taxes shown for each of the five years and added that together; the total freight car miles for each of the five year periods were taken for each year and added together. The rest of

the computations were made entirely the same way that computations were made in connection with my Exhibit No. 1.

[fol. 2164] Exhibit C-12 is a computation similar to my Exhibit No. 1 except that this is on the gross ton mile basis and Exhibit No. 1 was on the total car mile basis. Lines 1 to 7 of this exhibit are the same as lines 1 to 7 on Exhibit No. 1. I divided the gross ton miles into this operating expense to get the operating expense per gross ton mile. We did not make this showing as to expense on the gross ton mile basis with any idea of endorsing the use of that unit. On the contrary, I have said repeatedly and I wish to emphasize it again that I consider that the best possible unit to be used in the computation of expenses is the total car mile unit. Our opponents have suggested the use of the gross ton mile basis and they have filed with the Court, I believe, Mr. Kennedy's Exhibit No. 1 and other exhibits.

By Judge Soper:

The gross ton miles are taken from the carrier's reports to the Commission and they exclude the locomotive and the tender. Taking the B. & O. the figure of one-quarter of a cent is the operating expense per gross ton mile which is obtained by dividing the net operating expense, freight, line 5-G, by 47,644,667,000 ton miles. The taxes per gross ton mile are obtained by dividing the billions of gross ton miles shown on line 8 into the operating expense, freight, shown on line 5-G, and the investment is similarly obtained [fol. 2165] by dividing the billions of ton miles into the 5.75 percent return on investment assignable to freight in line 3.

By Judge Way:

The return on investment is shown on line 3 but that is not the exact figure on which we are asking the return. We have to figure that out in this way: We first determine the unit per total car mile and multiply that by the total car miles and that brings us to the amount which is necessary to bring about the 5.75 per cent return on that particular movement. Then after we get this cost on the gross ton mile basis we compare that with the revenue.

By Judge Chesnut:

The cost per gross ton mile is a very small unit. It is only approximately a quarter of a cent and is obtained by

dividing billions of ton miles, in most cases into the operating expense. Since the unit itself is so small, there cannot be a wide deviation between the different carriers that might be brought about by the use of a unit which is very much larger. So that while the expense for all of the lines shown in this exhibit is approximately the same, you might have somewhat wider variation if other roads were drawn into the picture, but it would not be as great as it would be if a larger unit were used.

[fol. 2166] By Mr. Beach:

The information I have developed in C-12 has been used to compute the data shown in my exhibits C-13 and C-14. I have shown on Exhibit C-13 the estimated expense per car on the gross ton mile basis but I have not introduced as an exhibit the detailed information such as I did introduce in connection with my car mile basis. We had to use a somewhat different method of computation in arriving at our expense as shown on Exhibit C-13 than in connection — Exhibits 3 and 3-A, but I used a gross ton mile unit instead of a total car mile unit, and we did not take ninety per cent of the loaded movement as representing the empty movement. We have to put the empty movement on the gross ton mile basis. This exhibit covers the same 17,324 cars that were covered by my other exhibit. The first two sheets are the 10,452 Atlantic Coast Line cars. As to those the net effect is that the revenue received which would accrue to the northern lines under the Commission's decision is greater by $42,612.73 than the aggregate expense north of Richmond computed on the gross ton mile basis. As to the Seaboard cars the revenue north under the prescribed division by the Commission would exceed by $24,281.72 the aggregate expenses computed on the gross ton mile basis. On the entire 17,324 cars on the gross ton mile basis as I have computed it there would be an indicated surplus as available for re-
[fol. 2167] turn on investment of between $68,000 and $69,000.

Taking up the similar exhibit which deals with the same 17,324 cars and applies the gross ton mile unit south of Richmond, the first two sheets of that exhibit being with respect to the Atlantic Coast Line cars and the last two sheets with respect to the Seaboard Air Line cars, in this case I have not shown in detail the computations as to the

per car figures. I have not reproduced the details which show how I arrived finally at the per car expense but excluding the 5.75 percent return, and that is using exactly the same yardstick that I used in Exhibit C-13 for the northern roads, the amount available for return on investment to the Atlantic Coast Line on the 10,452 cars is $999,883.13. The amount available to the Seaboard Air Line on the 6,873 cars is $698,904.14. I have nothing else to offer in connection with these exhibits. The exhibits and the explanatory statements that are attached to certain of them were prepared by me or under my supervision and they are true and correct to the best of my knowledge and belief.

Mr. Beach: I offer the exhibits Nos. C-1 to C-15, inclusive, excluding C-10 and C-11 but including the Exhibit No. 1-A which have been explained here today.

Witness: In explanation of why I did not make certain [fol. 2168] deductions which the southern lines made in their proposed Exhibit No. 1, while it is true that the transportation of citrus fruit does not involve the use of coal and ore wharves or grain elevators and many other railroad facilities, the objective point that I had in mind was to obtain a true average expense for handling all traffic of every description and that is predicated on the total car mile basis. Just so soon as any deductions are made of expenses for any railroad facility, whether it is used in connection with citrus fruit or not, then we get away from the true average. Further than that, the elimination of expense that may be assigned wholly to coal and ore wharves is only part of the expense that is incurred in connection with the transportation of coal and ore. You cannot eliminate this part of the expense and let the rest of the expense remain. You still have your coal shipments included in your total car miles. It would be necessary first to determine the total car miles made in connection with the transportation of coal and ore. Those statistics are not kept separate by the majority of railroads in Trunk Line territory. I think perhaps some of them do make some separate statistics as to coal but where they do that they do not make separate statistics as to ore as to car miles, ton miles, or what have you. So that, first of all, it is impossible to determine the car miles made by grain or any other commodity in connection with which some special facility has been furnished

[fol. 2169] by the railroad. That is the first insurmountable difficulty. But assuming that it were possible to eliminate from the total car miles the car miles made by coal, coal tonnage or ore tonnage, we still have the problem to go all through every major expense accounts and make some violent assumptions as to just what proportion of that account should be chargeable to coal. Every deduction that you make from the total expense for coal traffic or ore traffic would be an assumption, and a violent assumption, so that in the final analysis the figure that you got would not be worth the paper it was written on. Terminals and terminal facilities in connection with perishable traffic are more expensive to operate than the average run of terminals.

Cross-examination

By Mr. Clark:

My statement, based on the correctness of Mr. Doss' statement, was that the difference was approximately $7,000 in the amount received by the Central territory lines on traffic moving through Ohio River gateways under the prescribed divisions and under the basis that was formerly in effect. If Mr. Doss has checked his statement and figured the difference is $6,115.99, based on the total number of 8,509 cars, I would accept that in lieu of the general statement of approximately $7,000 which I gave. You have a [fol. 2170] somewhat larger number of cars than I covered in my statement and this statement of Mr. Doss, which covers some 8,509 cars, includes cars not only to Central territory but to what is known as Illinois freight territory.

Mr. Beach: I am willing to concede that the figure is $6,115.99.

Witness: The revenue which would have accrued to the northern lines on the basis of the rates and divisions in effect as of November 18, 1928, would be $553,152.19. The revenue which would accrue to those lines on the prescribed basis of divisions, that is the Commission's prescribed basis of divisions, is $547,036.20, so that the reduction in the northern carriers' revenue under the Commission's prescribed divisions is $6,115.99. The figures that are being corrected are in Hodkinson Exhibits C-10 and C-11 which are the exhibits that are still to be corrected and tendered.

They have not been put in. Mr. Doss' testimony shows that the Central territory lines have retained over and above what they would have gotten under the old basis of rates and divisions $17,000. We stacked that against the $24,000 shown on my Exhibit C-1 which made a rough calculation that the Commission reduced our revenues under the prescribed basis by $7,000 from the basis formerly in effect. Now that $7,000 figure is being corrected to $6,115.99.

[fol. 2171] By Mr. Clark:

On the average car from all Atlantic Coast Line origins to New York delivery by P. R. R., on the average haul and the average car, the Pennsylvania Railroad's revenue would be $65.42, an average per 100 pounds of 19.7. I am reading from page 47 of my Exhibit 2. That is not what will apply on a particular car. I cannot give you the Pennsylvania's revenue from Potomac Yards to New York unless you give me the specific point.

Going back to the three as a numeral that is deducted in arriving at the proportion north of Potomac Yards under the Commission's prescribed division, that is based on the division through Richmond. That having been determined, then the deduction is made but the car is given to the Pennsylvania or the B. & O. at Potomac Yards by the Southern Railway instead of going in through the R., F. & P. to the Pennsylvania or the B. & O. The R., F. & P. would not participate in the transportation and that is the reason that the adjustment is made to take care of the fact that I eliminate the R., F. & P.

By Mr. Reidy:

Referring in my Exhibit C-3, page 1, from Cincinnati, Ohio, to Buffalo, New York, a distance of 409 miles, I show the estimated expense per car for handling citrus fruit of [fol. 2172] $85.48. Between the same points with the same mileage I show on the Pennsylvania Railroad an estimated expense per car for handling citrus fruit of $106.34. That is a difference of approximately $21 a car between handling a car of citrus fruit over the Erie and handling a car of citrus fruit over the Pennsylvania. That is mainly due to the fact that the expense to the Erie Railroad on the total car mile basis is 8.8315 cents, whereas the expense to the Pennsylvania is 10.95445 cents. That is a difference

of a little over two cents per total car mile. The taxes also vary as between the two roads, that of the Erie being 0.58594 cents and the Pennsylvania 0.90963 cents. I could not say whether the physical characteristics over the two lines are approximately the same.

By Mr. Gwathmey:

Referring to the average haul of the Pennsylvania on citrus fruit north of Potomac Yards of 220.75 miles as shown on Exhibit C-15, I explained that that is an actual figure but it does not include any shipments other than those delivered by the Pennsylvania Railroad. It would not include any shipments through Potomac Yards which might move to any state in New England. It would not include any shipments through the Potomac Yards which the Pennsylvania might handle north of Potomac Yards but which were ultimately destined to points in Canada.

[fol. 2173] On shipments to New England ordinarily the Pennsylvania would haul the traffic from Potomac Yards to Jersey City and turn it over to the New England lines. On shipments to Canada it would more likely haul it up to Buffalo. On that movement which might go to New England or the points in Canada I don't know that the Pennsylvania would secure its longest haul north of Potomac Yards. It would be its desire to obtain the longest possible haul.

Coming back to this Canadian situation, Mr. Gwathmey. I would like to call attention, first, to the fact that the volume of citrus fruit traffic from Florida to Canada is not of any material moment. I am not saying there is no movement but it is not what I would style a heavy movement and, in the second place, the divisions on citrus fruits from Florida to Canada, according to my understanding, are not involved in this proceeding because the Commission would be without power to prescribe divisions between Canadian roads, on the one hand, and the United States roads on the other.

This statement (Exhibit C-15) includes the Florida East Coast cars. If I said it was confined to the cars that were covered by my cost study, that, of course, is an obviously incorrect statement because the cost study only covers

some seventeen thousand odd cars whereas this statement covers 21,420 cars. So this is the average haul of citrus fruit on shipments originating on the Florida East Coast, [fol. 2174] the Atlantic Coast Line and the Seaboard Air Line, destined to deliveries on the B. & O. and the Pennsylvania where only a single line haul is involved north of Potomac Yards. My cost computation, however, is specifically confined to the 17,324 cars which originated on the Atlantic Coast Line or Seaboard Air Line and does not include the cars which originated on the Florida East Coast. My cost study does not include any shipments which may have been delivered to the Pennsylvania Railroad at Potomac Yards by the Southern Railway and it does not include any of the shipments to New England or northern destinations to which you referred a while ago as to which the Pennsylvania was an intermediate carrier only.

At page 742 of the Commission's first report, 194 I. C. C., the Commission says, "In 1928-'29 the Pennsylvania received 24,123 carloads of citrus fruit at Potomac Yards and delivered 18,430 of these to final destination on its own rails. In the same period the Baltimore & Ohio received 4,502 cars and made final delivery of 3,128 of these." It appears, first, that out of a total of 28,625 cars which moved through Potomac Yards to the East the Pennsylvania Railroad handled all except 4,502 cars out of Potomac Yards. It also appears that during the same period which I have selected for my cost study there was a movement of a total of 11,301 cars via the Pennsylvania and the B. & O. together [fol. 2175] which are not covered by my cost study at all.

Referring to the last page of my Exhibit No. 10 in the large volume I have explained to the Court that in this case the Commission only prescribed the division as between the northern roads as a group on the one hand, and the southern roads as a group on the other. The Commission did not in any way undertake to fix the sub-divisions of the revenue as between the individual northern roads. Looking at the first item on that exhibit, two cars moving to Atlantic City, New Jersey, that means that the R., F. & P. procured as its revenue $21.22 a car. Taking the next item, five cars which went to Bellefonte, Pennsylvania, the total revenue being $121.49 to the R., F. & P., it received $24.49 as its proportion per car. Taking the next item, a movement to Canandaigua, New York, one car, the R., F.

& P. received as its revenue on that car $25.16. It appears that under the arangement between the roads north of Richmond and under my exhibits I show a fixed item of cost for the R., F. & P. for its movement between Richmond and Potomac Yards of $23.80, but it varies just as you would get a variation in connection with any divisional arrangement, depending upon the point of origin and the destination.

The basis on which that revenue north of Richmond is divided between the R., F. & P. and the Pennsylvania or the B. & O. is a matter of mutual agreement between the [fol. 2176] carriers and the divisions have been in effect for years. It has never been prescribed or approved by the Interstate Commerce Commission.

I haven't shown as to any of these shipments which go beyond the lines of the Pennsylvania that the apportionment of the revenue is as between the Pennsylvania and the lines beyond the Pennsylvania. Assuming a shipment that goes from Richmond to Portland, Maine, and assuming that that car might move over four different railroads, the R., F. & P. from Richmond to Potomac Yards, the Pennsylvania Railroad from Potomac Yards to New York, the New York, New Haven & Hartford Railroad from New York to Boston and the Boston & Maine Railroad from Boston to Portland, I have not shown anywhere in my testimony how much of the revenue would go to the New Haven or the Boston & Maine and have not shown whether the Pennsylvania would get too much or get too little but I can tell you this, that I know of my own knowledge that in the sub-division, as far as shipment is concerned from Richmond to Boston via the R., F. & P., the Pennsylvania and the New Haven, that while the Pennsylvania's haul from Potomac Yards to Jersey City is exactly the same distance as it would haul the car in connection with a local delivery to Jersey City, the proportion of the entire revenue that it gets north of Richmond is materially less on the through shipment to Boston than it gets on the local shipment to Jersey City.

[fol. 2177] Q. Yes, but taking now first the R., F. & P. and the Pennsylvania, what evidence is before this court or what is before the Commission, for that matter, on which this court or any one else can say that on a shipment going to

New York City, for example, the R., F. & P. is not getting too much and the Pennsylvania getting too little while on a shipment going to some other destination the reverse may be true?

A. My answer to that question, Mr. Gwathmey, is this, that the R., F. & P. and the Pennsylvania combined get a deficit in a revenue which accrues to them under the Commission's decision as compared to their expenses. The R., F. & P. has a deficit and the Pennsylvania has a deficit. What difference does it make whether the divisions between the two roads are equitable or not. If you add to the R., F. & P. you increase the Pennsylvania's deficit; if you take from the R., F. & P. you increase the R., F. & P.'s deficit.

In my computation of the revenues of the railroads south of Richmond, as shown in my first series of exhibits, I used the short line distances in accordance with the division sheet and the order of the Commission. The Commission's order provides that these divisional factors north and south shall apply over the short line routes. The short line routes of the eastern carriers are constructed in accordance with the [fol. 2178] formula laid down by the Commission in the Eastern Class Rate Case, Docket 15879, and the short line distances for the southern carriers, computed in accordance with the formula laid down by the Commission in the Southern Class Rate Case, Docket 16594.

Q. Then does it not follow that you have computed an estimated cost per car to the Atlantic Coast Line and have contrasted it with the revenue derived by the Atlantic Coast Line and in computing your cost to your revenue you didn't use the distance over which the Coast Line actually hauled the car?

A. Neither did I use the distance over which the northern lines handled the car.

I am comparing like with like. If I use the air-line distance for the north it is perfectly proper that I should use it for the south and the Commission's prescribed divisions apply in connection with the short line routes. Further than that, these rates themselves are, in a large part, predicated up on the Commission's class rate adjustment in the Southern Class Rate cases. In C. F. A. territory they are exactly forty percent of the first class rate. To

Trunk Line territory they are forty percent of the constructive first class rate.

When I computed my average haul of the Pennsylvania north of Potomac Yards, my traffic study was based abso-
[fol. 2179] lutely on a traffic study which was put in by Mr. Doss, Assistant Freight Traffic Manager of the Atlantic Coast Line, in this particular case, and his exhibits do not indicate whether or not any of the cars were reconsigned or diverted north of the gateway. I used the short line distances from point of origin to Richmond and from Richmond to destination. In my cost study I stated that I had used single line hauls south of Richmond and included shipments which originated on the Atlantic Coast Line and Seabord Air Line. I did not include, for example, shipments which originated on the Tavares & Gulf Railroad, so far as I know.

Taking my exhibit dealing with the Ohio River crossings, when I came to compute the revenues and expenses to the roads south of Cincinnati I obtained the mileage over the shortest possible routes between the respective junctions and used that mileage.

Referring to Exhibit C-4, sheet 1, where I computed various mileages from origin points in Florida to Jessup, Georgia, and answering the question as to whether or not shipments of citrus fruit originated at any of these points that I have shown on this exhibit when destined to points north of the Ohio River, actually moved through Jessup, Georgia, the traffic study submitted by the witness Doss certainly did show such traffic as moving. If any did move I did not know how it happened to move that way, but it is certainly on the statement because we went through the
[fol. 2180] statements very carefully to pick out shipments that moved over these specific routes. I have only selected the routes for which I was able to obtain the subdivisions south of the gateway, and I am not prepared to say here as to what extent the traffic actually moved over any of those routes.

Q. And if it be a fact that normally traffic from none of these points that I show in Florida when destined to Chicago or Cincinnati, for example, would move through Jessup, Georgia, but would move via some entirely different

route, then it follows necessarily that your computation of the Coast Line's revenue is entirely wrong, doesn't it.

A. Mr. Gwathmey, I can only repeat that in preparing this statement we went through Mr. Doss' traffic study very, very carefully. There were so many computations because of the literally hundreds of routes used that it would be difficult to find any specific shipments that moved via any specific route but my instructions were, and I have every reason to believe that they were followed, to the effect that we should go carefully through that traffic study and select points of origin in Florida on the Atlantic Coast Line where the shipments moved through Jessup, from Jessup to Chattanooga and from Chattanooga to Cincinnati. Whether or not that is a normal situation I don't know, but I certainly believe that these are representative ex-
[fol. 2181] amples of actual shipments over these routes. They were not presented as typical by Mr. Doss but they were included in his traffic study.

By Judge Soper:

They were presented in the traffic study before the Interstate Commerce Commission, a copy of which is in that record. Items 3 and 4 on Exhibit C-4, page 1, was an actual shipment from Avon Park to some point in C. F. A. Territory which moved via Jessup, from Jessup to Chattanooga and from Chattanooga to Cincinnati. As to the origin of the car, the number of cars and the routes that the cars took as shown by my statement, all of those were taken from the Doss statement. For example, from Avon Park via Route C-1 that is a route that means via Cincinnati gateway and Route No. 51, we had a shipment from Avon Park to Chicago, we had a shipment from Avon Park destined to Dayton, Ohio, Route C1, that is Cincinnati, 46. We had a shipment to St. Louis and a shipment to Pittsburgh. That is shown on Exhibit C-5.

By Mr. Gwathmey:

I don't know it to be a fact that every one of those cars that went through Jessup was a car that was reconsigned from Waycross to Jessup.

Q. I find a check of page 26 of your Exhibit No. 2 [fol. 2182] shows at least six points on the Taveres & Gulf

Railroad are included. Have you checked the exhibits carefully? I will name them to you—Winter Garden, Claremont, Monteverge, Ocoee and Tildenville?

A. We understood these to be all Seaboard Air Line origins.

I am not prepared to say whether they are or are not on the Taveres & Gulf. If I did include shipments from the Taveres & Gulf I used the Seaboard Air Line car mile cost in computing the cost for the entire distance.

I spoke in the course of my direct testimony about the Strawberry case and referred to certain evidence which the Atlantic Coast Line Railroad had offered in this case. The Pennsylvania Railroad Company was a party, I believe, to the Strawberry case before the Commission as well as the Atlantic Coast Line. I think the B. & O. was also a party. The case in court which was brought by the Railway Express Agency was prosecuted by the Express Agency on behalf of both of those railroads as well as the Atlantic Coast Line. It is a fact that the strawberries which were involved in that case, when they are moved from Florida to New York City or Philadelphia pass over exactly the same lines of railroad as the citrus fruit we are considering here. The Coast Line or the Seaboard bring them up to Richmond and the R. F. & P. and Pennsylvania take them [fol. 2183] on into New York. I think the movement of strawberries is wholly in express nowadays. I think it would be correct to assume that the strawberry movement is more expensive than the citrus fruit because of the fact that the strawberries are so much more highly perishable.

By Mr. McGehee:

Taking the division prescribed by the Commission and taking the movement which I have used (1928-1929 season), the divisions prescribed by the Commission would bring about an increase (I don't know the exact amount) into eastern carriers' revenue as of November 9, 1928, over and above what they obtained in connection with the rates as of November 8, 1928. That is based on the 1928-1929 season's movement. I have not checked the figures but Mr. McGehee has shown me a statement and I will accept that as being accurate and that shows an increase of approximately $54,000. I stated a while ago in response to a question from the bench that I considered the '28-'29 season

that I use in the figures as representative and I introduced testimony going back prior years to prove it. Taking the Potomac Yard gateway on citrus fruits from Florida, the citrus fruits either move into Potomac Yard over the R., F. & P. or they move in over the Southern Railway. The Southern, the R., F. & P., the Baltimore & Ohio and the Pennsylvania all use the same yard, that is Potomac Yard. [fol. 2184] I can't answer the question as to whether the service of the Pennsylvania Railroad from Potomac Yards to New York is the same on a car of citrus fruit received from the Southern Railway as it is on a car received from the R., F. & P., but the operating witness for the Pennsylvania will follow me and I am sure he can. I understand they received cars coming from both lines in the same yard. I have not made any cross study with respect to any shipment moving from Florida into Potomac Yards over Southern Railway.

I can give you the proportion per car which the Pennsylvania Railroad receives for its haul from Potomac Yard to Baltimore, but I cannot give you the per car revenue which they received in connection with a movement by the R., F. & P., but the entire picture is in Exhibit 10. I will make the calculation later and give you the same information as to Baltimore, Philadelphia, and New York, that is the per car revenue from Potomac Yards, Southern delivery, to the Pennsylvania and the per car revenue when the R., F. & P. delivers to the Pennsylvania.

By Judge Soper:

I did not compute any expenses from Potomac Yards in connection with any single line hauls either for the Pennsylvania or the B. & O. for the reason that I could not com- [fol. 2185] pare them with a single line haul in the south, there not being any single line hauls to Potomac Yard gateway. That is where the Southern Railway enters into the picture. The Southern doesn't pick up originally any fruit in Florida.

By Mr. Collins:

I do not show the operating cost figures per car mile for the Boston & Maine Railroad nor for the New York Central except as to a part of the New York Central system. That is what is commonly known as the Big Four, or the Cleve-

land, Cincinnati, Chicago and St. Louis Railway. That is in Exhibit C-2. It is not shown for the Pittsburgh and Lake Erie. The P. & L. E. only handled about five cars during this test period. It is not shown for the New York, New Haven & Hartford, or the Central Railroad of New Jersey, for the Reading Company, Lehigh Valley, D., L. & W., the D. & H. and the Pere Marquette. I do show it for the Chesapeake & Ohio Railway Company, the Chicago & Eastern Illinois Railway, Chicago, Indianapolis & Louisville Railway, the Cleveland, Cincinnati, Chicago & St. Louis Railway, including the Cincinnati Northern, Erie Railroad, including the Chicago & Erie, and the Evansville, Indiana & Terre Haute Railway. That is all in my Exhibit C-2. The only operating cost figures per car mile are shown in my Exhibit 1 and Exhibit C-2. That unit is necessary in order to show the operating costs. I have shown the revenues [fol. 2186] derived by the Boston & Maine from those divisions. And have shown them as to all the lines I mentioned.

[fol. 2187] Fourth Day

Baltimore, Maryland, September 20, 1934.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

W. A. Aiken, Jr., having been first duly sworn, testified on behalf of the petitioners as follows:

Examined by Mr. Eshelman:

I am Superintendent of Transportation for the Richmond, Fredericksburg & Potomac Railroad and have had about thirty-five years operating experience. I was not a witness in the proceedings before the Commission involving the divisions of rates on citrus fruits.

The Richmond, Fredericksburg & Potomac Railroad operates between Richmond and Potomac Yards. The main line is between Richmond and Washington, the freight line being Richmond and Potomac Yards. It has no branches. I don't know of any lines of railroad that own or control the R., F. & P. There is a holding company and they have a stock interest in it. The B. & O., Pennsylvania, Coast Line, Seaboard, C. & O. and Southern have an interest in the

holding company. I understand the State of Virginia owns some stock.

Potomac Yards is owned by the R., F. & P. Railroad. It is operated under a superintendent with a Board of Managers which is composed of operating officers of the B. & O., [fol. 2188] Pennsylvania, C. & O., Southern and R., F. & P. We originate and terminate very little traffic. We are primarily a bridge line. Our road is double track and northbound we have a six-tenths of one per cent ruling grade and southbound eight-tenths of one per cent. In rebuilding the line about 1905 the thought was, and the records will show, that the gross tons were about on that basis, that that equalized the tonnage so far as the power was concerned. To the extent that the trains running southward had less tonnage we worked them against slightly heavier grades and where the tonnage was a little greater northbound we gave them an easier grade. Our power is interchangeable as between freight and passenger. We have several different kinds of locomotives b[illegible] are all interchangeable. They are high speed locomo[illegible]ves. On account of the heavy passenger traffic we couldn't very well operate what some railroads would call drag freight trains, slow freight trains. There is a heavy movement of passenger trains over our line from Florida and the South. All the passenger movement interchanged with the Atlantic Coast Line and Seaboard at Richmond going north moves over our lines.

We receive citrus and other perishables from the Atlantic Coast Line and Seaboard Air Line at Richmond into what is known as Acca Yard. Both of those railroads deliver [fol. 2189] in Acca Yard. The perishable is moving on a time basis on what is known as a closing hour which is for the last section. The result of that is that this perishable is bunched, as we term it. Then after it is delivered in Acca Yard our responsibility is to get it to Potomac Yard to the connecting line within the closing hour. In order to do that in the usual handling it has to be inspected for safety appliances and the ventilator temperature record for the protection of the lading and the increase in the speed of that movement require more inspection force in order to reduce the terminal handling to the lowest possible minimum and then to increase the speed as compared with other freight we haul a lighter tonnage than we would with dead freight. We have an inspector that inspects all of the safety appliances, the air brakes, tests the air brakes and

then we have inspectors that adjust the ventilators on top of the cars, according to weather conditions, and keep records of all of those conditions. If defects are found we have to have power to throw that car out as quickly as possible and then we have to have repair tracks adjacent and, if possible, get the repairs made and get that car on a following train within the market hour. In respect of the speed with which repairs are made or with respect to the character of defects which might affect the progress of the car there is a considerable difference as between citrus and other perishables, on the one hand, and other freight. In [fol. 2190] addition to that we have inspectors with repair parts at intervals on the track to see that they can make any repairs without taking the car out of the train, while with ordinary dead freight you would, in the ordinary course of handling, switch the car and the time element would not be there.

The question came up sometime ago when we were talking about getting some new power as to the R., F. & P. taking over power from some of the interested lines but it developed that the power of our connections would not be suitable for us on our line to perform the service that we have to perform because of grade conditions and types of locomotives. In the case of one of the southern lines the locomotives on that railroad would haul twice as much tonnage as they would on our road. Then, of course, another element came in there. We are required to have the train control. We have the continuous type of train control between Richmond and Washington and the other locomotives are not so equipped.

The empty return movement of all refrigerator cars on the R., F. & P. runs around ninety per cent of the loaded. Citrus fruit moves practically wholly in refrigerator cars, so far as we are concerned.

In the first of the season we get anywhere from ten to five hundred cars of perishable freight. They would come in broken lots. In a heavy movement we have gotten around [fol. 2191] 450 to 500 cars but they are delivered in batches so you protect your movement regardless of the time delivered and then the result of that is that in order to protect the following day's movement you would have light power south and then due to the loading varying in the south you don't get that perishable in a steady stream each day. Then as the empties return from the north, due to

the day's unloading and the market varying, you will get a heavy return of empties without a corresponding movement north and we have frequently had light power going north part of the week and light power coming south the other part of the week. When I spoke of cars of citrus and other perishables coming to us in bunches or batches, I meant that our job is to move this traffic on to market as offered, and in accordance with the established schedules to meet market conditions. We move ten cars or a hundred. It doesn't make any difference.

We feel very clearly that the handling of citrus fruit and other perishables by the R., F. & P. is more expensive due to the service required by that commodity. I make no distinction as between citrus and other perishables. Citrus gets the same service, generally speaking, as all other perishables.

I am familiar with the fact that the witness Hodkinson in this case has made certain expense studies based upon [fol. 2192] a system average car mile unit. In my opinion I should say that is a reasonable and fair basis to be used for citrus traffic, that is in determining the fair approximation. My reason for that conclusion is that, as far as my responsibility is concerned, a car is a car. If I have got a car to move, if you put it on a car basis, all of my yard costs are based on the car unit and the same is true at the other end of the terminal. We simply have so many cars to move and I think I get a more accurate showing of what it costs me to handle when it is stated on the car basis than any other basis that the accountants may use. In my opinion I should not think that a gross ton mile basis adequately states the expense of handling citrus fruit on our line. It would not give us the credit that the car mile basis gives. We would know more accurately what we did with the car than we would with the fluctuation of the tonnage. Without having made a study of it, it would appear to me that the gross ton mile basis would substantially understate the expense of handling citrus fruit on our line.

I expect as a whole the refrigerator car itself is slightly heavier than the others. We pay for the use of refrigerator cars on a car mile basis and that applies equally for the loaded haul and the empty haul.

[fol. 2193] Cross-examination.

By Mr. Gwathmey:

In expressing my opinion that the cost of handling citrus fruit is greater than the ordinary run of traffic, I have not any figures with me. It is just the simple fact that I know we do a great deal more service for the citrus than for the other. I have no figures except I do know it requires more man power. Trains carrying perishables are received in interchange at Acca Yard by the R., F. & P. whether brought in by the Coast Line or by the Seaboard Air Line. During the period in which the citrus fruit is moving there is a very large amount of fresh vegetables from Florida and those are classified as perishables when I speak of perishable traffic.

If the Atlantic Coast Line brings in a train from the south and delivers it to us at Acca Yard, if we can get a solid train out of that delivery we operate whatever cars it takes to make the train. Then, with the remaining cars, we are forced to move them immediately and to protect what is left over we try to keep a fill-out of other freight and merchandise to get as near the total tonnage of the engine as we can to operate the second train. We consolidate the Atlantic Coast Line and the Seaboard Air Line deliveries with the view of advancing both trains. In the operation of our trains between Richmond and Potomac Yard, the number of cars varies with the type of locomo-
[fol. 2194] tive. It will run possibly as a maximum 80 and drop down to 40. We have operated very few trains with more than eighty cars. We have had a few cases, I expect, during the heavy period that we got up possibly to eighty-nine or something like that.

I did not make any figures as to how many cars of citrus fruit and other perishables our line received from the Atlantic Coast Line and the Seaboard Air Line jointly at Acca during the 1928-1929 shipping season, but I have seen, I think, an exhibit that was prepared in your office that shows, as I recall, something like 70,000 cars. If I recall, I saw a statement from our records that ran from November 9 to about June 30. I did not make any records myself. I was not asked to make any exhibits. This was an exhibit that was made up apparently from our train sheets and, if I recall, it ran about 70,000 cars of citrus and other perish-

ables, including vegetables. Citrus and vegetables come in the same trains and we handle them out in the same trains.

By Judge Soper:

The perishables during that period, as I recall, was just about equal to the other cars. We handled possibly just as many other cars as we did perishables.

By Mr. Gwathmey:

I made the statement that the locomotives of the south-
[fol. 2195] ern roads, at least the Atlantic Coast Line and the Seaboard Air Line, can handle twice as much tonnage on their railroads as they could on our railroad. The reason for that is the Atlantic Coast Line would have a more favorable grade line than we would. That is the reason for my statement that their locomotives can handle twice as much tonnage as ours, and that is the only reason I give. It so happens that the type of locomotives that the Atlantic Coast Line have and those we have is about the same. I did qualify that by the train control but there is no reason why the other locomotives could not be equipped with the train control, so the grade is the ruling factor.

By Judge Chesnut:

An .8 grade in freight movement is regarded as an excessive grade with us for the reason that the .8 per cent grade is located at a point that we could not call it a running grade. We have no opportunity to strike the bottom of the grade at high speed. It is true, I think, in the southern country where they have grades they do have long stretches of flat country so that when they get to the grade they go over it. We could overcome that by helper engines but we do not think it would be economical because we would have to have helper engines at about six different places, and this .8 per cent grade was figured on the as-
[fol. 2196] sumption that the preponderance of tonnage was northbound in just about the same ratio that the grades increased southbound. In other words for every 57 gross tons that I haul north, I won't have but 43 to bring south.

By Mr. Gwathmey:

It is economical for us to use a locomotive interchangeably for both passenger and freight service but it has also

been true ever since I have been with the railroad that the preponderance of the freight was high class perishable that had to be operated at a high speed, and if we had purchased a freight locomotive with low wheels and for drag tonnage, then the freight would not only have been delayed and the markets missed but it would have interferred with the operation of the railroad.

Redirect examination.

By Mr. Eshelman:

I did not state what the tonnage is of a given type of locomotive north and south. Take a locomotive rated 2,400 tons north, it is rated 2,000 tons south. All of our through citrus traffic received from the south, such as citrus and other perishables, comes to us over the Atlantic Coast Line and the Seaboard Air Line. The Atlantic Coast Line gives us the most.

[fol. 2197] By Judge Chesnut:

Our average running time for perishable freight from Richmond to Washington is about three hours and forty minutes. We have made the run in three hours. Our passenger trains do slightly better than that.

N. S. Menaugh, a witness on behalf of the petitioners, having been first duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am Superintendent of Freight Transportation of the Eastern Region of the Pennsylvania Railroad. I have been in the Transportation Department of the Pennsylvania Railroad for more than forty years as a telegraph operator, train dispatcher, yardmaster, assistant trainmaster, trainmaster and eventually superintendent of freight transportation. My experience has covered other regions of the Pennsylvania as well as the Eastern Region. I spent about twenty-five years of my time in the Pittsburgh District, that is on the Central Region. I have been in Philadelphia in the position of Superintendent of Freight Transportation since 1927. I am familiar with the method of handling

citrus fruit, perishable fruit, and other perishables over our socalled New York Division. I had supervision of the New York Division for a number of years. I am also familiar with the type of power that is employed on the [fol. 2198] Pennsylvania Railroad as a whole. I testified in the proceedings before the Commission out of which the instant case grew.

In my opinion it is more expensive for the Pennsylvania to handle citrus fruit and other perishables from the south as it does handle them as compared with the average traffic generally on the system.

In the first place, there is a difference in the service given the empty refrigerator cars as compared with the empty movement of cars in general. The empty movement of refrigerator cars is equally as important southbound as the loaded movement northbound normally, particularly so during the height of the season when the refrigerator cars for loading in Florida are in great demand. We move the refrigerator cars with practically the same despatch in the terminals and over the road in the southward movement empty as we do the loaded movement northbound. It is necessary to immediately get the cars away from the perishable terminals after they are unloaded to make room for incoming business when the volume is running heavy. If we delivered any train of empties at the Potomac Yard for our connection and the need of those has suddenly ceased through crop or other conditions, they will refuse to take them for the reason that there is no per diem accrual on privately owned cars. I mean the daily rate that is paid by one railroad for the use of cars of another rail- [fol. 2199] road. A railroad cannot refuse to accept a car of its own ownership if tendered to it under the socalled per diem rules. They must accept it or allow a re-claim of a dollar a day to the holding line. In other words, they only pay for the refrigerator cars while they are moving and for the others as long as they hold them.

I am familiar with the operation of Potomac Yards. The perishable freight received at Potomac Yards northbound is usually delivered under the prevailing operation schedules in the restricted, or limited, period. That period is at night. The schedules from the south over the R. F. & P. and Potomac Yard bring the business to the Potomac Yard shortly after midnight, and usually, or invariably, bunched.

There may be four or five trainloads arrive at the Potomac Yard in the course of an hour. That business has to all be handled, inspected, classified, re-consignments made, and outbound trains made up and dispatched on the basis of their schedules within a period of approximately four hours to four hours and a half.

When I speak of trains being classified, I mean that the cars are sorted into different tracks, depending on the terminal point to which they are to go or the immediate disposition that is to be made of the car. They are sorted over a "hump" by gravity. In the first place, Potomac Yard is [fol. 2200] an interchange point between the R., F. &. P., the Southern Railway and the C. & O. on the south and the Pennsylvania and the B. & O. on the north. One railroad is very reluctant to accept cars from another connection at the interchange point unless those cars are in the best of physical condition. That requires what we call an interchange inspection of the physical condition of the car be made at the Potomac Yard, which requires considerable more time in the inspection of the individual car than the ordinary road inspection does. Usually it is the receiving railroad that makes the inspection, and each road has their own car inspector there. The receiving road northbound will inspect the cars, but at the Potomac Yard we have an arrangement of making a joint inspection down there. With that arrangement, or both north and southbound traffic having only one inspection, it makes it considerably less expensive. Any exceptions as to the physical condition that the inspectors find, they endeavor to make the repairs right on the receiving tracks without cutting the car out of the train. For that purpose, along the receiving tracks there is distributed a supply of all kinds of small parts that can be readily handled without putting the car on the shop track. I am speaking more particularly of the citrus and other perishables when I speak of making repairs when cars are standing in trains.

[fol. 2201] The hurried repairs are only made to citrus and perishable freight. We cannot afford to take any chance of delaying the perishables by making repairs as we do to heavy commodities that do not have to be handled through the yards with the same dispatch as perishable does. If we had a car that was not in such a hurry and

needed certain repairs we would just let it remain in the train and it passes over the hump and is run on the shop track. The necessity of moving citrus and other perishable fruits quickly necessitates having a large inspection force in order to do the work in the time allotted or in the time that can be allotted for inspection in the total time that is allotted the yard. That means extra expense because of the larger number of men you have to have. We cannot hire a man for an hour and put him off. We have to pay him for a day regardless of the service under the wage agreements. It is also necessary, on account of the necessity of quick classification, when trains come to us bunched, to provide extra yard power to get them out.

By re-consignment is meant the changing of the destination after the arrival at Potomac Yard. If there were orders given for a change in the destination before the car had arrived at Potomac Yard that would be called "diversion." Ordinarily there is a different charge made for a diversion and for re-consignment where charges are made. [fol. 2202] We do not make any charges for either diversion or re-consignment at Potomac Yard. North of Potomac Yard we charge $6.30 for reconsignment and $2.70 for diversion which is made in transit. There are exceptions to that. It is just a general statement. There are some exceptions to that in the New York District. There is a substantially greater amount of reconsignment in the case of citrus and other perishables than in respect of all traffic generally. There are a substantial number of cars of citrus and perishables that come billed to Potomac Yard with the intention of sending them beyond to some other destination by means of this reconsigning arrangement. When the carrier has not received any orders at the time that the car arrives at Potomac Yard for its further movement, it is run to the hold track when it is classified and held there until further orders are received. There is quite considerable work involved with cars that are run on the hold track. There is a physical handling of such cars on the hold track from day to day. All cars under refrigeration that are being held on the hold track have to be returned to the ice house, bunkers filled, and if no diversion orders are received up until that time, returned to the hold track and held until further instructions. Close inspection has to be made of the ice condition in all the bunkers, and ordinarily

they are re-iced once each twenty-four hours. There is switching to and from the ice house which is one of the [fol. 2203] elements supposed to be included in the refrigeration charge but there is switching from day to day incident to the selection of cars on the hold track for further movement forward. It is not infrequent that possibly 150 or 200 cars, if there are that many being held at Potomac Yard at the same time, have to be handled in order to release twenty or twenty-five on that particular day.

By Judge Way:

We do not make any extra charge for taking these cars to the hold track. There is nothing in the orders or regulation of the Commission to keep us from doing that.

By Mr. Eshelman:

There is considerable clerical, telegraphic and other expense in connection with the reconsignment and diversion of freight. If the original owner of the car was in Florida and disposed of that car to a commission merchant in New York, he would notify the division freight agent of the forwarding line in Florida of the diversion of such and such a car to the consignee in New York, and ordinarily that diversion order would be handled by telegraph, received at Potomac Yard and the necessary billing changed. If he wanted to sell it to a man in Philadelphia he would follow practically the same procedure except he would [fol. 2204] notify the agent at New York to arrange to have such and such a car diverted to a certain receiver in Philadelphia. Then the agent in New York would telegraph or telephone to Potomac Yard.

My Exhibit A, together with its explanatory statement, was prepared under my supervision and direction, and it is true and correct to the best of my knowledge and belief, and that also is true with respect to the narrative statement which is attached.

There is one slight correction. On page 3, the statement is made in the third paragraph, close to the bottom, "Average detention was 2.5 days per car." That should read "1.6 days per car," instead of "2.5 days per car."

Referring to the column entitled "Total loads," it indicates there that there was a total of 28,038 northbound loads

handled through Potomac Yard during the month of May, 1929. Of those 13.1 per cent or 3,660 cars were citrus. A total of 4,018 cars were placed on the hold track for reconsignment during that time, of which 1,783 were citrus. 44.4 per cent of all cars held were citrus cars. The statement at the bottom is simply for information purposes as to the number of days individual cars were held and the number of such cars. For example, it shows there on the second line for May, 1929, that there were 979 cars of citrus fruit held one day for reconsigning purposes and 391 cars for two days.

[fol. 2205] My Exhibit B is a chart designed to show the fluctuation in the number of cars of citrus and other perishables received by the Pennsylvania at Potomac Yard dur-

[fol. 2206] ing the years there indicated. It was prepared under my supervision and at my direction and it, and the narrative statement attached, are true and correct, to the best of my belief.

Mr. Eshelman: We offer these two exhibits as our next exhibits.

Judge Chesnut: What bearing does this exhibit have?

Mr. Eshelman: The purpose of the exhibit, if you will permit me to state it, is that the receipts from day to day are subject to substantial fluctuations either due to Sundays or days when loading is not performed in the origin territory to so great an extent or dependent upon the days when the cars must arrive at market or on crop conditions, or otherwise. It is primarily intended to show the variation from day to day.

By Judge Way:

That variation is radically greater in the case of citrus fruit and perishables, generally speaking, than it is in the case of other classes of freight. Roughly, I would say, at least fifty to sixty per cent greater. It demonstrates the necessity from a transportation standpoint of what has to be arranged or provided for. The fluctuations from day to day mean that we have to keep available at Potomac Yard sufficient cars and crew to take care of possibly not the peak

[fol. 2207] business but at least the average business on that day. Market conditions don't demand that volume of freight, it is not forwarded, and as the result we have our power lay-

ing down there for a day or two idle. In other words, one day we may not need any help at all and other days we may need more help than we have.

Mr. Gwathmey: May it please the Court, your Honors will perhaps recall early in the case I interposed an objection that this is merely a duplication of the evidence which is now available in the record before the Commission and is now available to the Court, the record having been offered here. In the interest of saving time I am calling the Court's attention to the fact that this first exhibit which Mr. Menaugh has used is apparenly a duplication or a practical duplication of his Exhibit No. 148 offered at page 720 of the record before the Commission. His second exhibit is a duplication or practically a duplication of his Exhibit No. 150 offered at page 728 of the record. The data is all before the Court already in the form of the record before the Commission and, of course, can be used by any parties in the case.

Judge Soper: I think everybody agrees that the Court could not be expected to accept the large record here unless particular parts of it on which counsel are relying [fol. 2208] were pointed out. I don't know of any better method of pointing it out than what is being done. That is the opinion of the Court. The objection is overruled.

By Mr. Eshelman:

Citrus fruit and other perishables handled by the Pennsylvania out of Potomac Yard are in arranged freight train service which is set up on a schedule basis exactly the same as a passenger train schedule in operation is set up. That is to be distinguished from freight service that is operated simply whenever trains may be available and may be run without having definite schedules. We operate arranged freight service trains from Potomac Yard to Baltimore, Washington, Philadelphia, Greenville, Jersey City, Harrisburg or Enola Yard which is just across the river. Greenville is the interchange point between the Long Island Railroad, the New Haven Railroad and the Brooklyn and New York local short line and the Pennsylvania. There is a very important terminal known as Harsimus Cove which is right in Jersey City proper. Greenville is south of Jersey City. Through Harsimus Cove all of the New York Pennsylvania

Railroad perishable business is handled. We don't handle any of the New York perishable business through the Greenville gateway.

[fol. 2209] By Judge Chesnut:

The perishable terminal facilities of the Pennsylvania are on Manhattan Island, Piers 27, 28 and 29. We float the cars there from Harsimus Cove across the North River.

By Mr. Eshelman:

In a normal day we operate an average of about fourteen or fifteen arranged freight service trains out of Potomac Yard for these terminals that I named. That would include trains for Harsimus Cove, Greenville, Philadelphia, Edgemoor Yard, the terminal at Wilmington, Baltimore and Enola for Harrisburg. The volume of perishables received by the Pennsylvania at Potomac Yard would go out in arranged freight service trains to these various terminals named. There is only one terminal in the northern markets that can and will absorb anything near like a trainload of perishable freight a day. That is at New York piers, as far as the Pennsylvania is concerned. We do occasionally have a solid train of perishables, possibly ninety or one hundred cars for the New York market.

By Judge Chesnut:

The cars are floated across North River on ferries and unloaded direct from the car to the pier. The consignee disposes of it there at public auction or private sale.

[fol. 2210] By Mr. Eshelman:

Occasionally we may have a solid train of perishables to Philadelphia or one of the other markets, particularly so when the North Carolina potatoes are running or during the period when there is a considerable volume of watermelons but we never have anything near like a train of perishable freight of Florida origin, that is fresh fruits or vegetables and citrus fruit from Florida. It is always built up to a solid train of commodities that originate north of Florida.

I testified before the Commission that in the peak season we would run one of our New York trains a substantial

portion of the time as virtually solid cars to the Harsimus Cove terminal. That applies only to the Harsimus Cove terminal where the New York market business is handled but it does not apply to all trains operated to Harsimus Cove on the same day. We designate the Harsimus Cove train as M. D. 12. That is virtually the only train from Potomac Yard that would operate any substantial portion of the time during the peak season as a solid train. Other trains from Potomac Yard to Harsimus Cove also carry perishables.

The check that I made of the movement during the season of 1928 and 1929 when the perishable movement was at its height showed there were thirteen per cent of the total trains that were represented northbound out of Potomac Yard that were loaded solid with perishables. A check of [fol. 2211] last year's operations along the same lines indicated that there were five per cent of the trains operated north of Potomac Yard that were loaded solid with perishables.

We have laid down for us by our claim department a rule that perishable freight has to be delivered at the scheduled terminal in time for the designated market for that particular commodity. Those market hours are established by conference between the railroad representatives and the representatives of the Commission Merchants who are commonly known in the northern market as members of the Car-Lot Receivers Association. They establish, in conference, the certain time for the delivery of certain commodities on the market. We set up our schedules and endeavor to provide for the train arrivals so that the terminal work can be done and the car made available for the consignee at the market hour. At the perishable terminal itself there are different hours for the sale of different perishables. Market hours start at ten o'clock in the evening for certain commodities for private sale, and they extend, spaced an hour and a half or two hours apart, from that time up to as late as 8:30 in the morning. We have to get the train there in time so that the earliest market hour for a certain commodity can be protected.

The Claim Department doesn't set the time. We, in con- [fol. 2212] ference with the Commission Merchants, arrive at the time. The Claim Department has ruled when a time of that kind is set and established we have to live up to it

or we are subjected to a claim for failure to make a market for a certain commodity. Ordinarily arranged service trains that handle perishable freight on our line are not hauled subject to full tonnage or a trainload. We have to leave the originating destination with what is available at the time that the schedule is due to leave that point and continue to a final destination on the same basis whether we have ten cars or whether we have a full trainload of perishable freight. The more difficult grade conditions on the sections of line between Potomac Yard and New York are encountered between Washington and Baltimore. Northward we have four very severe grades to negotiate, that is grades in excess of one per cent ascending on the northward movement. East of Baltimore we have two very stiff grades, although not quite as severe as the grades between Washington and Baltimore and up as far as Wilmington. Generally speaking a given amount of power necessary to take a particular train to Baltimore would be more than sufficient to take it beyond Baltimore with the exception perhaps of those certain grades I mentioned north of Baltimore. Ordinarily in handling trains out of Potomac Yard we endeavor to get as much tonnage on the train as we possibly can and operate out of Potomac Yard with two or more [fol. 2213] engines per train. Taking our trains to destinations such as New York, Philadelphia, Edgemoor, because of the speed with which those schedules are maintained, we do not ordinarily have an opportunity to stop at intermediate terminals, such as Baltimore, and pick up or drop freight and thereby perhaps to fill out full tonnage for the section beyond Baltimore. Our schedules will not permit of that kind of an operation. For the New York market with the M. D. 12 and ordinarily from Philadelphia market with the B. P., as we know it, we run direct without making any pick-ups or set-offs. Even if we were pretty well loaded to our power south of Baltimore, the necessity of running through without stopping beyond where our grade conditions are easier leaves a surplus of unused power beyond, and to that extent we have no opportunity of availing ourselves of the capabilities of our locomotives beyond. If our freight was of a slower, heavier character we would have better opportunity to make use of the full tractive power of our locomotives. Ordinarily all of our freight trains out of Potomac Yards, if there is sufficient

business passing through that yard to justify it, are provided with at least two or more engines.

On the line from Washington to Baltimore and north we have a very heavy, important passenger density of traffic. We have to be prepared to start quick and make speed on [fol. 2214] the main tracks between passenger trains when there is an opportunity to use those same tracks between passenger trains. Between Washington and Baltimore we have two, three and at some places for short distances, four tracks. Between Baltimore and Philadelphia we have an arrangement of two, three and four tracks.

I agree with Mr. Aiken that cars used in citrus traffic, that is refrigerator cars, are heavier than the average of all cars used by us. That difference is substantial with the Pennsylvania to the extent of from four to five tons per car. It is just that much more dead weight to haul.

It is very frequently necessary to operate a train with very substantial under-rating of the engine because of market conditions.

To illustrate the difference between the handling of perishables and the handling of other freight, the train designated as M. D. 12 which runs from Potomac Yard to Harsimus Cove arrives at that point with classifications that have already been made at Potomac Yard. All of your citrus business is in one block and other fresh fruits and vegetables for New York in the second block, all citrus or fresh fruit and vegetables for delivery at Jersey City in the third block. The train is broken at Harsimus Cove and the fresh fruits and vegetables ordinarily which are due on the [fol. 2215] earlier market than the citrus fruits are, is switched out by commodities, loaded on car floats and floated across the river to the piers. Those cars are all promptly unloaded at the piers so that the empty car can be returned to Harsimus Cove on the same float, and in order to get as much use out of the floats as we possibly can we have to go right back with them and unload the floats of empty cars in order to reload with loaded cars for the pier again. It is very frequent in that service for one night's market that the carfloat will make four or five trips across the river. With respect to citrus there is also a holding arrangement at Harsimus Cove somewhat similar to that at the Potomac Yard. The arrangement in handling citrus fruit at Harsimus Cove is that all citrus fruit, unless

it is specifically ordered by car number by the consignee, will be held on the Jersey City side of Harsimus Cove and not delivered over to the pier unless it is ordered over.

If the carrier receives word from the consignee while that car is enroute from Potomac Yard not to send it in to the holding yard but to send it directly over to the piers, that car will be immediately switched out from the remainder of the citrus fruit and taken over to the pier and delivered.

Taking not only M. D. 12 but such other trains as we have from the Potomac Yard to Harsimus Cove that carry citrus [fol. 2216] fruit, the citrus and other perishable is first classified or sorted out before the other freight upon arrival at the terminal. The classification at Harsimus Cove is all done by flat switching, and by flat switching I mean there is no hump and that the car must be started on its movement by effort from the engine and not gravity. There is considerable grade towards the river which makes flat switching a more easy job than you will ordinarily find it on level territory. You have the chief of the slope towards the river which tends to give you pretty near the same result as the hump does. That makes a pretty tedious job and a job that has to be handled very carefully to prevent those cars from running into the river. That is done by providing additional car riders to ride the car and bring it to a stop before leaving the car. I mean by car riders, brakemen.

The marine service is one which entails substantial difficulties as compared with the ordinary rail transportation. It is a very tedious, in fact I might say hazardous, job all the way through. It is a hard job to load a car float, in the first place. Those floats hold ten cars, five on each side with a runway in the center. The ordinary procedure in loading them is that a draft of cars is shoved half way on one side, then pulled back and the other side filled up with five cars, then returned to the first side and fill that with five cars. [fol. 2217] That has to be done on account of the listing, for if you attempted to load five cars on one side the float very likely would capsize.

I spoke of holding cars at Harsimus Cove which had not been ordered into the piers. Those are cars which would be destined for the New York market. If the consignee would sell that to a receiver in Boston that car would be

reconsigned from that point, shifted out, returned to Greenville for delivery to the New Haven road if it was routed by way of the New Haven. That would be done under a diversion. I think there is a charge for diversion at Harsimus Cove of $2.70. It would not be treated as reconsignment because it had not arrived at its final destination. It was diverted intermediate.

The unloading at the New York terminals is all performed at the carrier's expense. Ordinarily carriers do not unload carload freight at their own expense. The other special services incident to the handling of this citrus and perishable traffic are auction rooms provided for at the larger terminals; policing and cleaning the terminals, and heating them. There is also inspection and recoopering. I mean by recoopering that we endeavor to restore to good order any damaged packages that are unloaded and may have been damaged either in the unloading process or in transit and restore them to first class condition. Free un- [fol. 2218] loading is performed at Philadelphia too. There are special notices given to the receivers in connection with the movement of perishable freight. They are notified almost daily as to the progress of the movement of their cars. The receivers in Philadelphia, New York and Pittsburgh are advised of the leaving time of any cars consigned to them, leaving Potomac Yard. Before the cars reach destination and while the cars are still in transit information is given to receiver as to the location of his car, in what train it is and approaching what terminal. That is done so that they can provide for distribution of it. The markets maintained by the trade are, to a substantial extent, maintained on the properties of carriers and it is generally the case that there are perishable terminals of modern type and designed with complete facilities at practically all the important markets or terminals where citrus and other perishables are terminated. As to the importance of those terminals to the trade and the perishable business both from the production and consuming standpoint, it is my opinion that the development of the refrigerator car and also the development of the modern method of marketing fruit in the north is what has established the citrus and fresh fruit and vegetable business.

It is my recollection, as disclosed by Exhibits 212, 213-A to about 215 by the witnesses Heywood and Bond that the

[fol. 2219] cost of handling cars of citrus and other perishables at New York are $29.60, at Pittsburgh $16.05 and at the B. & O.-Reading, Philadelphia terminal, $21.18.

It is a fact that Long Bridge across the Potomac, because of its somewhat ancient type, limits the type of car which we may employ in moving our freight from Potomac Yard northward. There is also passenger traffic on Long Bridge which entails delay. Through Washington we operate what is known as the Virginia Avenue tunnel and that tunnel is subject to block restrictions. By that I mean when one train is in the tunnel another one may not follow it until it has cleared the tunnel. There is also a drawbridge across the Anacostia River. Our line from Washington to New York is a high speed passenger line where many trains operate at high speed, making it necessary that the freight keep out of the way. There is also a use of the freight tracks by the passenger trains over these lines that necessitates getting the freight into the clear. There are extensive interchanges of the use of tracks. The grades are very substantial on our Washington-Baltimore line and if the train is loaded pretty close to tonnage coming out of Potomac Yard, whether with one or two engines, it is frequently necessary to supply helper service on some of those grades. In going through Baltimore we operate two tunnels, both of considerable length with sub-
[fol. 2220] stantial grades. They represent a substantial investment. The maintenance of those tunnels is a more difficult type of maintenance than the open road. They are subject to block restriction and restrictions as to admitting freight trains to the tunnel when it is occupied by a passenger train in the opposite direction. Even though a passenger train is using one track, we do not let a freight train in on the other track while the passenger train is in the tunnel. There are substantial grades out of the Baltimore station area back into the section where we have our terminals for perishables. The Baltimore terminal is one of those modern terminals which has been provided by the carriers. It is at Mount Vernon on the old North Central route, north of North Avenue Bridge. It is also a fact that we have a substantial movement of light engines from the Baltimore passenger station to Orangeville engine house which is some distance the other side of the tunnel north of Baltimore, and there is a certain amount of local passenger business in and out of Baltimore which affects the movement.

Coming now to the area of Wilmington, Chester, Marcus Hook, Philadelphia, Trenton, and on beyond and into the New York area, we have a very substantial portion of elevated lines or depressed tracks to avoid conflict with highway traffic. Generally speaking the type of railroad which the [fol. 2221] Pennsylvania has through these centers is a comparatively expensive type of line.

The so-called Freight High Line through Philadelphia is better than four miles long. It is an elevated structure for the purpose of keeping the freight traffic out of the immediate passenger area in Philadelphia. Also upon passing the Schuylkill River and going north through North Philadelphia we have a full mingling of freight and passenger trains on the four-track system at that point. That is also a line where there is a great deal of through and local suburban service. The Chestnut Hill, Germantown, Atlantic City, New York and New Jersey beach resort trains run that way.

When I testified before the Commission to the effect that the New York division was one of high traffic density I was talking about an exhibit showing train density and was not talking about tonnage. Train density is representative of the operating conditions which you have to contend with, that is the interference of one train with another. Tonnage density has no real significance insofar as train density is concerned or insofar as the operation is concerned.

There is at times helper service north of Baltimore between Perryville and Wilmington. As compared to other portions served by the Pennsylvania this eastern section, particularly [fol. 2222] from Wilmington north and also the cities of Washington and Baltimore, represent a fairly populous territory, and there is also substantial train interference by reason of New York suburban traffic which would be encountered by our trains south of Waverly. Waverly is a yard at the junction of the lines which diverge, one to Greenville and the other to Harsimus Cove. There are two rivers in the Newark-Jersey City area, the Passaic and the Hackensack Rivers which are subject to drawbridge interference, being navigable waters. I could not say whether they were part of the waters to which the Commission's recent order regarding lighterage related.

I am familiar with the fact that the witness Hodkinson has in his expense studies used the car mile unit for the purpose of approximating the expense which would be fair here to

use for the citrus traffic and that he has testified that in his opinion it was fair. The use of the car mile unit in attempting to approximate the expense to the Pennsylvania which may be said to be less than the real expense of handling citrus and other perishables as handled by that company, I think is a fair measuring stick to use. It is my opinion that it is the only unit which gives a proper value for the handling of an empty car. The gross ton mile unit for commodities loading [fol. 2223] less than the capacity car loads, that is in weight, are not as satisfactory and indicative, in my opinion, of expenses as the car mile. Train loads are often stated in number of cars instead of tons. Service freight trains for perishable fruit generally have to be operated without regard to tonnage, owing to market requirements and the volume of the business. Therefore you only have a car mile unit to fairly state the expense. Car mile units do not, in my opinion, pyramid terminal expenses when the average load hauls are about the same. Generally I would say that the average cost for handling an empty car is as great as the average cost of handling a loaded car.

In my opinion the operation incident to the handling of citrus over the lines of the Pennsylvania from Potomac Yards to New York is more expensive than handling freight on the system generally. The potential rating for the L-1S engine out of Potomac Yard northbound is 2,640 adjusted tons. The same locomotive in other districts of the eastern region and also on the system is rated as high as 9,000 adjusted tons. Adjusted tons is the designation we use to arrive at a trainload potential. There is an arbitrary factor arrived at by tests in the mechanical department of a certain number of tons to be added to the gross weight of each car in establishing a trainload for a locomotive. That factor in the business northbound out of Potomac Yard is five tons to each car, so that in computing the tonnage for a certain [fol. 2224] train out of Potomac Yard the yardmaster will arbitrarily add five tons to the gross weight of each one of those cars and he arrives at his trainload. The reason why a locomotive is rated 2,640 tons for the New York run and rated at 9,000 tons for other parts of the system is owing to the grade conditions that are encountered. The engine is rated so as to be able to haul and start the tonnage if brought to a stop at the most severe point enroute. From Washington to New York for hauling say a 5,200 ton train, that would

be two engines rating 2,640 tons for each locomotive. The train will have two of the L-1S locomotives between Washington and New York. That would be 5,280 tons. A 5,200-ton train from Philadelphia to Pittsburgh, the L-1S engine could handle that train singly or alone as far as Altoona. At Altoona sufficient helpers would be provided to the extent, I would say, of possibly two of our largest type mountain engines to push it up the eastern slope of the Alleghany Mountains where the same type engine would be able to take it from there on to Pittsburgh without any further assistance. By adjusted tons I mean the additional weight assumed by virtue of adding an arbitrary of five tons to each car, and therefore when we calculate the pulling capacity of the locomotive for any particular number of cars whether loaded or empty, we add five tons to each car to compute the load in comparison to the power of the locomotive. 2,640 [fol. 2225] tons is the adjusted tonnage rating representing fifty cars, making the gross weight of the train 2,640 less the 250 adjustment factor that was added to it, or the deadweight of the train including the car and the lading. That means that as far as the deadweight is concerned that engine could haul over the grades between Baltimore and Washington 2,390 tons of deadweight freight, either loaded or empty cars. In the territory between Philadelphia and Altoona or until you get to the foot of the Alleghany Mountains the rating for that particular engine on the adjustment gbasis is 5,350 tons. For fifty cars, you deduct 250 tons from that and it will give you the deadweight load of approximately 5,000 tons that the engine could haul. I am comparing Potomac Yards to New York with Pihladelphia to Altoona. I mean to say that the grades from Philadelphia to Altoona are so much lighter than the grades between Potomac Yard and Philadelphia. That is true all the way to Pittsburgh except over the mountains where there is a different operation entirely. We give it assistance. We make no change in the number of cars except we add cars to it if it is not a justifiable load to require two helpers and too much for one. The mountain grade on the eastern slope of the Alleghany Mountains is a little better than one and one-half percent. On the western slope it is approximately the same thing. The western slope is longer than the eastern [fol. 2226] slope. One and one-half percent is a maximum except for the very short distance on the eastern slope

which has no particular bearing on the loading of the train. What we call the momentum grade to a certain extent is approximately two percent. We have as high as three percent grades on some branch lines but on the main line.

When I spoke of the ascending grade on the eastern slope of the Alleghanies I was talking about a grade which lay west of Altoona. Generally speaking the line of the Pennsylvania from Harrisburg to Altoona lies along the Susquehanna and mainly the Juniata Rivers. The distance from Altoona west to the top of the grade is about fifteen miles on the eastern slope. The adjustment factor is added to account for rail resistance, curve resistance, wind resistance, drawbar pull—an arbitrary that the test department lays down. The adjustment factor is the same for an empty car as a loaded car.

Cross-examination.

By Mr. Gwathmey:

Q. Mr. Menaugh, at page 758 of the Commission's report in this case I find the following: "Reconsignment undoubtedly is a heavier burden on the Southern carriers which are called upon for most of the division and make no charge therefor. The eastern carriers to an important extent have [fol. 2227] reconsignment charges on this traffic." Is it the purpose of your testimony to dispute the correctness of the Commission's finding?

Mr. Eshelman: I think I should answer, if I may, the purpose of the testimony.

Judge Soper: I think the only purpose of the reconsignment testimony is to show that happens more frequently with perishables than others and applies to both sets of roads.

By Mr. Gwathmey:

At page 745 of the report I find that the Commission made this finding: "During the height of the shipping season from November to May it appears from a chart based on the 1928-'29 season that the Pennsylvania seldom received less than fifty cars of citrus fruit per day at Potomac Yard and frequently as many as 200 cars. During the height of the citrus season the Pennsylvania operates solid trains of

perishables from Potomac Yard to New York. To other destinations in the interior of New England Trunk Line territory there is insufficient traffic for solid trainloads." Is that a correct finding by the Commission?

A. Yes, I see no objections, nothing wrong in it insofar as occasional trains that I have testified to today to New York.

[fol. 2228] I made the statement before the Commission at page 716, referring to Potomac Yard, that "It is an important gateway for southern traffic moving to the north, which traffic in cars of perishable alone, amounted to 102,034 in 1928, 107,496 in 1929 and 101,245 in 1930." Those figures are correct to the best of my knowledge, if they are the figures I testified to. At page 831 I was asked "In your operations out of Potomac Yard do you make any effort to run exclusively perishable trains or do you have other freight," and I answered, "If we have the volume there we run exclusively perishable trains; if not, we will fill out with any other commodity ready to go at the time." That is a true statement. On the same page of the record I further stated, "During any one of the general seasons that were mentioned through Potomac Yard, the citrus, the watermelon or peach seasons, we invariably have at least one and possibly two solid perishable trains for New York or three or four in all that have other freight beside perishable but that is the exception." I still adhere to that statement. On page 832 of the record I was asked, "In the classification of trains at Potomac Yard is any effort made to consolidate New York shipments into one train," and I answered "Yes." I was asked, "Is it practicable to do that as a rule?" I answered, "Yes, we do not have any difficulty in doing it." That is correct and I still adhere to it.

[fol. 2229] I said that we occasionally have solid perishable trains out of Potomac Yard and gave an estimate of thirteen percent of the total number of trains. In the season of 1933 we were operating not over five percent. It is true that there was a decided falling off in the volume of citrus fruit through Potomac Yard in the season of 1933.

I would say that the expensive terminals in the eastern cities are the outgrowth of the development of the perishable traffic.

Our railroad does not keep monthly reports designated as locomotive performance sheets. We have certain statistical reports. The mechanical department does keep a record of the average consumption of coal and oil and water but as far as individual locomotives are concerned there is no record I know of as to what services they have performed except the number of miles that they have run. We have locomotive performance records as to the locomotive performance on the different divisions of the railroad but I don't know what they are called.

I stated in substance that it cost more to haul a refrigerator car than an ordinary car because a refrigerator car weights from four to five tons heavier but I didn't just say it in that way. It cost more on account of the deadweighs from four to five tons heavier but I didn't just here that the costs are not affected by the loading in a car. [fol. 2230] I would say that they certainly are. It would cost more to haul a car containing fifty tons of freight than it would to haul a car containing only twenty tons if you are talking about the hauling of it strictly, but I won't agree with you if you are talking about the handling of it. If you refer to the hauling of it from A to B, I would say it costs more to haul it.

By Judge Soper:

I do not know whether the figures given covering terminal expenses at New York, Philadelphia, and so forth, contain a return on investment and taxes.

By Mr. Collins:

I testified that the car mile unit expense was, in my opinion, a fairer measure than the gross ton mile method of estimating the cost of handling this citrus fruit traffic. I think you get a fuller value of your entire terminal handling expense on a car mile basis than you do on a gross ton mile basis. I cannot distinguish between the two methods by mentioning particular items. The car mile method takes into consideration the difference in the length of hauls over the system to the extent where the length of the haul was about equal. The car mile method does take into consideration the difference between the lengths of hauls over [fol. 2231] the entire system of the railroad in the same

relation as a gross ton mile would. In reducing the operating expenses to a car mile unit you average all of the hauls over the system just to the extent you would with the gross ton mile if it were used. The car mile method does not take into consideration or make any allowance for difference in the character of the commodity hauled over the system. It does not take into consideration the difference in the type or topography, mountains, or flat country, over which the railroad's traffic is hauled, nor the density of traffic, nor the daily loaded car movement, the extent of the empty car movement, the nature of the equipment involved and does not count empty cars the same as loaded cars. We do in calculating the operating cost of the citrus fruit traffic take into consideration the nature of the equipment, whether railroad owned cars or privately owned cars. The car mile method counts the main line and branch line traffic alike, just the same as gross ton mile; all traffic hauled at intrastate rates and interstate rates, all averaged, and carload and less than carload counted alike.

I am not prepared to say how much greater the expense of handling perishables. including citrus fruit, is over the expense of handling ordinary traffic. I don't know whether it might be fifty cents a car or might be five dollars a car, of my own knowledge.

[fol. 2232] By Mr. Reidy:

I have described in some detail the special tracks necessary at Potomac Yard for cars held there pending reconsignment orders and the expenses attendant in connection with that movement.

Generally speaking all service within Potomac Yards is performed by a joint agency and the expenses are borne by each line running into the yard in proportion to the cars moving between Potomac Yard and the particular line to which the cars are delivered, except that there is a further refinement in it than just the general question as it has been stated. The expenses of the Southern lines, as I understand it, terminate when they make a delivery of the freight into a certain zone known as A zone and the expenses of the B zone which include the classification and D zone which includes the dispatching zone is divided as between the receiving lines from that point on.

Redirect examination.

By Mr. Eshelman:

I responded to Mr. Gwathmey with regard to the weight of a car and its effect upon expense. I was there referring to the physical effort of hauling a heavily loaded car. I had reference to the physical effort required for the haul-[fol. 2233] ing of the car as compared with the entire physical effort and expense required in the handling of the car from the time that it was received until it is ultimately delivered. Leaving out the element of terminals, there are a number of expenses incident to the line haul operation which do not accrue upon a weight basis or which are not dependent upon the efforts put forth in moving the trains but upon other elements. While, as an example, the hauling of coal in seventy ton cars in a certain direction requires a certain number of engines and a certain number of crew, in the opposite direction those cars when made empty could all be assembled and possibly hauled empty in the opposite direction with only one engine and one crew but when we are talking about expense, nevertheless the fact remains that the crews that went East and the engines that went East have to get back to their Western destination again. The repair or depreciation element on an ordinary car, or the equivalent of it, the two cents per car mile on the refrigerator car, is not proportioned to weight at all. It is entirely a per car matter.

[fol. 2234] A. F. McSweeney, having been first duly sworn, testified on behalf of the petitioners as follows:

Examined by Mr. Eshelman:

I am Superintendent of Freight Transportation at Chicago, Western Region, Pennsylvania Railroad. I am generally familiar with the operation incident to the handling of citrus fruit and other perishables from the Cincinnati gateway to such destinations as Chicago, Columbus, and Pittsburgh. They are the principal destinations to which the Pennsylvania handles citrus fruit from the Cincinnati gateway to destinations on its line in that territory. I was a witness in the proceedings before the Commission which

led to the instant case. The citrus traffic or perishable traffic from the South generally to our territory is received through the Cincinnati gateway. To permit the market arrival at either Columbus or Pittsburgh or Chicago it is necessary that we predicate our schedules on the time of receipt of the traffic until the time we can deliver the traffic at the three points named. For that reason it is necessary for us, after receipt of the traffic at Cincinnati (we have given the Southern lines a certain closing hour to get our train out on time) to increase our inspection and it is necessary that we have additional engines available at the time we receive it to permit of its getting the traffic to the designated markets. As far as the trains are concerned [fol. 2235] themselves, we run our arranged service trains with a lighter tonnage to maintain a faster speed. In handling the traffic from Cincinnati to Chicago, a distance of 292 miles, we block the traffic on the extreme front end of the train leaving Cincinnati, that on arrival at Chicago we have the traffic available there for another yard engine to handle it to what we call the Chicago Produce Terminal that most of the citrus fruit is delivered to. The other perishable at Chicago may be delivered at the produce terminal or it may be delivered on a team track of our own at Chicago. The same thing might be true of traffic handled to Columbus, Ohio, where we do not have an auction delivery, although we have a market condition in which we have got to deliver the cars to our produce terminal which is a team track arrangement. At Pittsburgh—the mileage from Cincinnati to Columbus is 121 miles and from Columbus to Pittsburgh is 191 additional miles. We block our traffic, perishable traffic, at Columbus. In classifying over our Eastern hump we maintain a classification and operate from that point two arranged service trains to handle perishable traffic to Pittsburgh. The one train leaves there at 9:15 in the morning, arriving at Pittsburgh at six o'clock that night, to permit of the market delivery say by eleven o'clock for early market. We go to the additional expense of classifying that into a separate block at Colum- [fol. 2236] bus to facilitate the handling and the special movement that we give that traffic at Pittsburgh. The second train likewise leaving Columbus at 5:30 P. M., and we have to deliver this traffic at Pittsburgh by seven o'clock in the morning, we also classify the perishable for Pitts-

bugh on the front end of that train. If we did not have those conditions and schedules to meet and the market conditions we would necessarily classify those cars over the hump into the general run of traffic for Pittsburgh, as I have stated to meet those conditions it is necessary that we have a faster schedule on that particular traffic than we do the other general run of traffic through Cincinnati or Columbus.

The Chicago Produce Terminal is a joint operation of the Santa Fe and the Illinois Central Railroad. To permit us to make delivery of our citrus fruit or some other perishable traffic to receivers at Chicago Produce Terminal it is necessary that we pay a $12 charge per car to effect delivery to the Produce Terminal. That $12 charge is taken out of our proportion of the rate between Cincinnati and Chicago, the principal produce terminal in Chicago for all commodities. There are at Chicago several other produce terminals like the potato yard on the Northwestern Railroad. There is a potato yard in the Chicago Produce [fol. 2237] Terminal but the general run of perishable traffic is delivered at the Chicago Produce Terminal. The trade meets there and has its markets and that is the important place to get the perishables, and particularly the citrus is delivered at that point.

In general the points made by Mr. Menaugh with respect to the necessity of handling cars of citrus and other perishables through the yards in a rapid manner, using additional power, additional crews or additional inspection forces to facilitate the handling of the cars through the yard is likewise true in my territory.

By Judge Soper:

Q. Is there any comparison that can possibly be made between the terminal expenses such as you illustrated a moment ago for the Produce Terminal in Chicago and terminals for other kinds of articles used in commerce? You have coal terminals and grain terminals. Is there any reason to suggest that the expense attendant upon perishable terminals is greater than other kind of freight?

A. Well, your Honor, I might answer that question in this respect that on the general run of other commodities in a great many cases, taking particularly Chicago in [fol. 2238] which we have a great many industries located

on our line, there is no switching expense. I mean there is no tariff charge to deliver that to the industry. The cars are moved into a classification yard that serves this particular district and they are delivered to those industries without that tariff charge. That is what I wanted to try to bring out to your Honor. I mean generally cars move into a common yard and then they are delivered to the various industries or team tracks. There are certain forms of business, however, in which there are special facilities afforded in addition to perishables. You take the facilities that we have under my jurisdiction. We have the coal machines at Sandusky through which we handle a considerable volume of traffic. As far as my district is concerned, we don't have any grain elevators of our own.

By Mr. Eshelman:

In a great many cases private sidings for industrial delivery of carload freight are carried at the manufacturer's expense beyond a given point from the main track. They are then private sidings.

We have one 172 miles of single track railroad between Cincinnati and Chicago on which our arranged service for handling perishable traffic is operated. The balance of it is double track railroad, from Logansport, Indiana, to Chicago. Our line to Chicago operates through Richmond [fol. 2239] and thence through Anderson to Logansport and beyond. That is the line I was referring to. I mean Richmond, Indiana, and Anderson, Indiana.

What Witness Menaugh said about special passing reports for trains, advance information by telegram, special service performed at produce terminals, is generally true, to my knowledge, in my territory. The Chicago Terminal District is one of complexity which affects the amount of service to be rendered by the carrier to a great extent on account of the number of the railroads at grade. It results in delay in making the crossings and loss of time by train crews. It also entails the expense of maintaining interlockers.

In my opinion, the handling of citrus and other perishables by the Pennsylvania from the Cincinnati gateway to Chicago, Columbus, Pittsburgh and to other destinations in Central Territory or in connection with its handling of

all citrus in that territory is more expensive per car unit than the cost of handling all traffic. The lines on which we handle citrus to the three destinations named are more expensive as a whole, including the terminal, than the average expense in the handling of all traffic. For the reason of our lower engine rating on those respective lines and, in particular, you take the handling of the traffic between [fol. 2240] Columbus and Pittsburgh in which it is necessary for us to provide additional helper service at three given points within the 191 miles. There is also in the Pittsburgh District much terminal interference on account of the number of passenger trains. To provide the proper delivery at the produce terminal at Pittsburgh it is necessary to go over the line that is handling a considerable number of through and suburban passenger trains. There are seven tunnels between Denniston and Steubenville, Ohio. There are a great many curves in the line between Denniston, Ohio, and Steubenville or even up to Carnegie, Pennsylvania.

Cross-examination.

By Mr. Gwathmey:

Our company pays $12 to deliver a car of perishables at the Chicago Produce Terminal. There are certain movements in the Chicago District that exceed that $12, that is on a car loaded in Chicago District for another point in Chicago district where there is a one or two or three line haul. The charges may run $18, $22 or $24. Personally I say it is not an unreasonable charge. I would not say that the Chicago Terminals are highly congested.

By Mr. Collins:

We pay this $12 for getting our traffic into the terminal [fol. 2241] to the Chicago Produce Terminal Company which is owned jointly by the Santa Fe and Illinois Central. The Pennsylvania Railroad is put to the additional expense of our yard crews handling it from our receiving yard to the Produce Terminal. If we had our own produce terminal we would have to do the same thing.

I have not prepared any study in dollars and cents as to how much more expensive it is to handle the citrus fruit traffic than all other traffic. I do not know whether it costs

fifty cents more a car or whether it costs five dollars more a car.

I spoke of the fact that I had especially to classify citrus fruits cars to meet an eleven o'clock market in Pittsburgh. It is a fact that we have to classify these cars at one time or another, but not in the particular sense that I mentioned. All carloads of freight have to be classified but there can be one to five cars in one particular cut that requires one brakeman to ride it over a hump operation, or there may be five particular cuts that would require five men to do it. I have never made a study as to how much more it costs to classify these cars especially than to classify them in ordinary classification. I would say that it is my opinion that it costs more.

By Mr. Clark:

[fol. 2242] As Superintendent of Freight Transportation mine is the practical job of getting the freight over the road. I am not in a position to say why it costs our company $25 a car more to haul a car of citrus fruit from Cincinnati to Buffalo than it does the Erie Railroad the same movement, Cincinnati to Buffalo. I really am not in a position to say what the Erie Railroad charges or anything else. I couldn't answer why our company absorbs the switching charges to get into the fruit terminal at Chicago. I am not a traffic man and I haven't anything to do with the rates. It is in order to reach the terminal with our car, the same reason we absorb $9 to get in the fruit house at Cincinnati. In the movement from Cincinnati to Chicago we have competition with the Big Four, and, in addition, there are other roads from Cincinnati to Chicago beside our Road and the Big Four—the C. & O. Our road absorbs $12 per car out of the revenue on cars off of our railroad in order to reach the fruit terminal at the Chicago Produce Terminal. We make a $9 absorption in order to reach the fruit auction house at Cincinnati. There are other lines of railroad between Cincinnati and Chicago that could have handled the traffic besides the Pennsylvania and it was in order to get the business for our company that the switching absorption was made to get into the terminal.

[fol. 2243] The Pennsylvania Railroad Company maintains a produce terminal at Pittsburgh, into which cars from

other roads are not switched, the reason for which I do not know but the fact is that cars from other roads are not switched into our terminal; the Baltimore & Ohio and Pittsburgh & Lake Erie also maintain terminals at Pittsburgh but the Pennsylvania's terminal is the largest and best. Our traffic officials put the terminal at Pittsburgh to get the traffic.

By Judge Way:

When the Produce Terminal was built by the Santa Fe and the Illinois Central at Chicago the only way we could get into that particular terminal was by paying a $12 switching charge. In other words, they had the facility and we were trying to get the business into Chicago via our own line. I don't know whether we could have probably charged that $12 to the owners of the citrus fruit. That is more of a traffic question, whether they could add that to the through rate or not.

By Mr. Eshelman:

Our tonnage rating for engines over the line by which we handle citrus and other perishables from Cincinnati to Richmond, Indiana, is 2,850 to 3,000 tons and for the same class engine we handle 8,500 tons between Columbus and Sandusky.

[fol. 2244] THOMAS J. WARD, a witness on behalf of the petitioners, having been duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am District Supervisor of Terminals of the Baltimore & Ohio Railroad. I am generally familiar with the handling of citrus and other perishables and of all traffic generally over the lines of the Baltimore & Ohio. I was a witness before the Commission in the proceedings which led to the instant case, the Citrus Fruit Divisions case.

The Baltimore & Ohio receives Florida citrus fruit principally at Cincinnati, Ohio, and Potomac Yards, Virginia, destined principally to Dayton, Ohio, through the Cincinnati gateway, Toledo, Lima, Akron and Youngstown, and from Potomac Yards into Baltimore, Philadelphia and there

is some small business through Pittsburgh to West Virginia points.

Our handling through the Cincinnati gateway is entirely the largest volume north to Dayton, Ohio, and at Dayton to our connections with the Erie Railroad and to Lima, Ohio, where we connect with the Nickel Plate, as well as local deliveries in Dayton. Some small proportions in Lima we also handle to Toledo on the same trains over the same territory for delivery to the city local, or team, track delivery and freight connections of the P. M. and Michigan Central. In order to make the schedule deliveries and market re- [fol. 2245] quirements at Toledo, as well as at Dayton, we have to run our trains at an increased speed and cut the tonnage accordingly. We have a large type of locomotive in the territory from Cincinnati north of Toledo, with a potential tonnage of about 6,300 tons. On the perishable train which leaves Cincinnati at noon—12:45—we handle 3,100 tons, and on the next train, which does not meet the early market, we handle 4,100 tons, while on the straight freight trains that handle the ordinary class of freight, we give that train 6,300 tons. That is entirely due to the market requirements which is based on perishable freight and citrus fruit.

At the Potomac Yard we have to cut our tonnage about from eight to nine hundred tons per train on the fast freight, that is, on the perishable train. We get our fruit from the South into the Potomac Yard so as to leave there at four o'clock in the morning. Potomac Yard has four hours in which to classify and handle the freight and then deliver it to us and we have to get it to the market at Baltimore for the eight o'clock sale which must be placed at seven A. M. We are coming through a territory with that train where the passenger interference is rather heavy right at that time of the day. So that we cut the train from a possible tonnage of the engine of 3,000, and the engine is [fol. 2246] rated ordinarily at 2,850 to 2,250 tons, and if the train is more than thirty or forty minutes late we cut it to 2,000 tons. That train also carries perishable and citrus for the Boston Market and the New Jersey market. We also have to move this train through the tunnels at Baltimore where we use motors as helpers, with the 1.5 per cent grade through the Howard Street tunnel and the ruling grade east of Baltimore of 1.8 per cent.

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Out of Cincinnati we block our perishable by destinations, as well as for the different railroads at Toledo. We do that on account of the very close connection and not having time at Toledo or destination points to switch it out. That means excessive yard engine hours.

On the eastbound business at the Potomac Yard we block our fruit on the rear end of the train by destinations and on the head end for local points and we block the re-icers by themselves so that they can be quickly handled at destination if they have to be re-iced before going to the market.

If, on a particular day, we had no citrus or other perishables to go forward to that market, it would make no difference at Potomac Yard on that train, but we would stop that train at Baltimore, if it had no perishable, and double it up with a section that starts from Baltimore. We would drop one section. In the slow service, of course, we depend [fol. 2247] entirely on tons. We try to get a heavy train and get more service out of the power and the crew.

The conditions to which Mr. Menaugh testified, such as the prompt handling in Potomac Yard, the quick inspection, the repairs and holding of cars, reconsignment, the movement up through the Washington District, including the limitations on power at the Potomac River, apply equally to the Baltimore & Ohio. The Baltimore & Ohio has the most modern type of perishable produce terminals at Philadelphia and Baltimore. The Baltimore Terminal is at Camden and Howard Streets.

It is my opinion that it is more expensive to the Baltimore & Ohio to handle citrus fruit and other perishables from the Potomac Yard and Cincinnati gateways to the destinations to which it handles those commodities, than the cost of handling all freight on its lines.

I am not an accountant, but I do considerable figuring on costs and I consult with the Comptroller in doing it, and my instructions from the Comptroller's office are, in figuring light commodities under twenty tons, in order to get the lowest approximate cost, to use the car mile basis. In so far as I can understand it, that is the best method of estimating expense that I can get. In my opinion it is certainly not unfair to do it, considering the fact that citrus fruit is more expensive to handle.

[fol. 2248] Cross-examination.

By Mr. Gwathmey:

In the hearing before the Commission I filed an exhibit, No. 187, showing that during the period from September 1, 1928, to June 30, 1929, the B. & O. handled out of the Potomac Yard in round figures 5200 cars of citrus fruits, 6900 cars of other perishables, and 65,000 cars of other freight. If we had handled no citrus fruit at all out of Potomac Yard but had continued to handle the vegetables and other perishables, the fact that we handled no citrus would affect the train operations, in my opinion, to this extent, that the citrus fruit does not run entirely at the same time that the other perishables do. Our market for citrus fruit is at auction. We do not have an auction on any other perishable. We do not auction the produce and necessarily we have to make the auction market with citrus that we do not have to make with other perishable freight. It is true that the citrus fruit from Florida and vegetables from Florida move during the same general period of the year in different volumes.

In expressing my opinion as to the cost of handling citrus fruit as compared with other traffic, I was speaking generally; that is, the extra handling and the additional han-
[fol. 2249] dling that we have to give it in the terminals, in particular, where our service, of course, is much more expensive in every way. In addition to that there are station forces that are required to handle it and our switching service. We have to have our switching engines meet the perishable trains, wait for them, and handle it. We do not do that with any other class of service. I do not know what you mean by saying the Baltimore & Ohio has a great many branch lines. Our main lines in some territory you might consider branch. But we consider them main line territory. I don't know what you would call a branch line. I have no actual computations and have not produced any figures nor made any study to determine how our cost of handling citrus fruit over the lines on which we handle it may compare with the cost of operation on some of our small lines out in the outlying districts.

[fol. 2250] J. O. BELL, a witness on behalf of the petitioners, having been duly sworn, testified as follows:

Examined by Mr. Hall:

I entered the service of the Chicago and Eastern Illinois Railway in 1905. I was trainmaster on the Evansville-Terre Haute Division until 1910; was superintendent of the same division until 1913, then superintendent of the Illinois Central Lines and, later, on the Chicago Division from Terre Haute to Chicago and including the line from Villa Grove Division Point on the St. Louis Line to Chicago. For the last seven years I have been Superintendent of Transportation at Chicago of the Chicago & Eastern Illinois Railroad. My jurisdiction covers the division to which I was assigned, and as superintendent of transportation it covered the handling of traffic on the entire system.

I was a witness in the proceedings known as docket No. 24069 and in docket No. 24160 which dealt with rates on citrus fruits to points in C. F. A. territory.

I have examined and am familiar with Hodkinson's Exhibit C-1, covering the movement of citrus fruits from Florida to points in this territory during the season of 1928-1929. I have observed in that exhibit the number of cars that were handled by the C. & E. I. during that season. There were a total of 365 cars handled through Evansville [fol. 2251] which went principally to Chicago and a few cars to intermediate points. That movement during the season of 1928-1929, as shown by Hodkinson's Exhibit, is approximately in accord with my knowledge and experience of the movement of perishables over our lines in subsequent seasons. It is handled on the same basis as to volume, apparently. Considering the difference in volume, the point of origin, the gateway, and the destination were substantially the same and the conditions under which it was handled was substantially the same.

I am familiar with the operating and transportation conditions of that portion of our line from Evansville to Chicago which is principally used in handling citrus fruit from Florida to destinations in C. F. A. territory. Leaving Evansville we have two rather heavy grades, a .94 per cent, northward at two ruling grades, another northward grade of .81 per cent between Evansville and Terre Haute. From Terre

Haute north the ruling grade is .83 per cent to Danville; north of Danville 45 to 50 per cent ruling grade.

In my opinion the expense per car mile for all traffic on the C. & E. I. is less than the expense per car mile from Evansville to Chicago.

I am familiar with the services performed in connection [fol. 2252] with the handling of all traffic generally, as well as with the handling of citrus fruit from Evansville to Chicago and other destinations on our line. Based on my operating knowledge and experience, my opinion is that the handling of citrus fruit and other perishables is more expensive than other traffic. In handling citrus fruit from Florida, and other perishables received through the Evansville gateway, in our train schedule set-up for handling that business it was necessary to reduce our tonnage haul in order to bring citrus handling trains to a higher rate of speed and accomplish arrival at the market for the next morning and to accomplish connection with schedules of connecting lines at some intermediate connections. This means an increase per car mile for citrus and other perishables handled in such trains.

It is my opinion from looking at the Copeland Density Charts for the year 1928 for the Chicago & Eastern Illinois Railroad that traffic density in net revenue tons and company tons, as indicated by that chart, from Evansville to Chicago is not greater than the average traffic for the same period on the entire C. & E. I. system. I have already expressed the opinion that the expense per car mile from Evansville to Chicago is greater than the average per car expense for all traffic on the system.

[fol. 2253] Cross-examination.

By Mr. Gwathmey:

The C. & E. I. operates between Evansville and Chicago, between St. Louis and Chicago, between Chaffe-Thebes, the Mississippi gateway, and Chicago. The distance from Evansville to Chicago is 287 miles from passenger station to passenger station, shown in the Hodkinson Exhibit as 284 from yard limit to yard limit. The mileage of the entire system is 945.

By Mr. Collins:

I have made no study to enable me to say how much greater is the expense of handling citrus fruit than is the expense of handling all traffic on the C. & E. I. All I do is to express an opinion that is costs more for the reasons I have pointed out.

[fol. 2254] J. E. TEAL, having been duly sworn, testified on behalf of the petitioners as follows:

Examined by Mr. Hall:

I am J. E. Teal, Richmond, Virginia; Transportation Engineer, Chesapeake & Ohio Railway. I have jurisdiction over the entire Chesapeake & Ohio Railway system. I report to the General Manager. I was a witness before the Commission in the proceedings known as Docket No. 24069, dealing with divisions of rates on citrus fruits to points in Trunk Line and New England territories; also in Docket No. 24160, dealing with the division of rates on citrus fruits to points in C. F. A. Territory. My testimony appears at pages 867 and 5829 of the record.

I am familiar with Hodkinson's Exhibit C-1 covering the movement of citrus fruit from Florida to points in C. F. A. territory during the season 1928-1929. That Exhibit shows that our company received the great bulk of citrus fruit handled by it to destinations in C. F. A. territory through the Cincinnati gateway. By far the larger portion of the citrus fruit that was received at Cincinnati moved to Chicago, or the Chicago area.

Q. Is the movement during the season 1928-1929, as shown by this exhibit, in accord with your knowledge and experience of the general course of movement of citrus over your line to destinations in C. F. A. territory in subsequent seasons?

[fol. 2255] A. I have no definite figures for subsequent seasons. Perhaps the business has dropped off a little bit.

Q. I am not asking you particularly about volume, but merely the points from which you receive it, the points to which it goes, and the conditions under which is is handled.

A. That is so. The greater volume goes to Chicago.

[fol. 2256] —of our line in my previous testimony. I am familiar with the service performed for all traffic generally, as well as on citrus fruit, from Cincinnati to destinations on our line.

Based on my operating knowledge and experience, citrus fruit is the more expensive to handle as compared to the average of all traffic on the Chesapeake & Ohio Railroad.

Mr. Hodkinson was furnished figures by the General Superintendent of Transportation showing that during the six year period from 1928 to 1933, inclusive, the refrigerator car mileage aggregated 64,943,982 car miles; empty refrigerator car mileage aggregated 49,761,324 car miles. The ratio of empty refrigerator car mileage to the loaded refrigerator car mileage is approximately 77 per cent.

I do not believe that the average cost per car mile for the C. & O. system as a whole, including the Hocking Valley Railway, is representative of the unit cost on the Chicago Division. In fact, I believe the figure of 7.5 cents as shown on page 1 of Hodkinson's Exhibit No. C-2, is much less than the average cost per car mile on our line between Cincinnati and Chicago. There are a number of reasons and I will enumerate some of them: By far the greatest per cent of car mileage made on the C. & O. system, includ- [fol. 2257] ing the Hocking Valley Railway, is made on main lines having very low grades as compared with the grades on the Chicago Division or on other branch lines. The following percentages illustrate this point: I find during the month of August, 1929, 75 per cent of the total car mileage was made on our main lines beginning at Newport News and moving west via James River Line to Clifton Forge and thence west to Cincinnati and from Limeville, Kentucky, to Toledo, Ohio. These main lines have relatively very low grades which permit the operating of large trains. Seven per cent of the car mileage during the same month was made on the Chicago Division where the grades are relatively higher than on the main lines above referred to. As an illustration, there is a grade of 1.9 per cent uncompensated which is equivalent to 2.2 per cent between Cincinnati, Ohio, and Cheviot, Ohio. West of Cheviot the ruling grades range up to 1.1 per cent uncompensated. By reason of the heavier grade lines it is not practicable to operate trains of the same weight and lengths

as on the lighter grade lines. The freight train performance of manifest and slow freight services during the months of August, 1934, when on the C. & O. system the average train loads were as follows:

[fol. 2258] Manifest	Gross	ton	2392
Slow	"	"	5859
Average	"	"	4187

While for the Chicago Division during the same period the average train loads were:

Manifest	Gross	ton	1331
Slow	"	"	1383
Average	"	"	1343

From the above it will be seen that on the Chicago Division the average gross train load of manifest trains was but 56 per cent of the system, the average gross train load of slow freight trains was but 24 per cent of the system, while the average gross train load of the combined manifest and slow freight trains was but 32 per cent of the system.

During July, 1934, the average number of cars handled per train on the C. & O. system, including the Hocking Valley, was 77.3, while on the Chicago Division the average number of cars per train handled was 32.5, which was 42 per cent of the system average.

In my opinion the average unit cost per car mile of handling citrus fruit and perishable freight on the Chicago Division is gerater than the average unit cost per car mile of handling all freight between Cincinnati and Chicago.

[fol. 2259] Reasons for my opinion, in addition to the above, are already a matter of record in which I explained the very special services required in the handling of this class of traffic. Some of these reasons I will summarize as follows:

(a) Schedules are made to meet the markets, requiring trains to be operated regardless of whether or not there is sufficient amount of traffic to build up the normal or rated train loads.

(b) Perishable traffic occasionally requires the operation of special trains with a portion that misses connection in effort to overcome claims, etc.

(c) Scheduled perishable trains cannot be filled out even to limited tonnage unless it is available at times due to leave and destined to points that will not require additional stops.

(d) Delivering lines (the C. & O. in this instance) absorb large terminal expenses incident to handling this traffic through the fruit auction houses and including cost of inspection, recoopering, etc., together with a very heavy expense over the delivering railroads located in the Chicago area.

I was a member of the accounting and operating commit-
[fol. 2260] tee appointed to cooperate with Mr. Hodkinson in the preparing of his studies showing the estimated expenses of handling citrus fruits. I give consideration to the reasonableness of the average car mile expense unit as a means by which to estimate expense of handling citrus fruit traffic. I considered the special and expedited service given citrus fruit and other perishables which have been described here and as to which I previously testified before the Commission.

During my entire experience of approximately twenty-five years with the Baltimore & Ohio and Chesapeake & Ohio Railways, I have had occasion to make many cost studies or estimates of expenses in connection with the operating, including line haul and terminal, engineering and maintenance of way problems.

It is not possible to determine the actual cost of handling citrus fruit or any other particular traffic moving in trains with other commodities and in limited volume such as is shown with respect to citrus fruit moving through Cincinnati and other gateways to C. F. A. territory.

From Doss Exhibit 312, I note that during the citrus fruit season beginning with November 9, 1928, and ending June 30, 1929, the Chesapeake & Ohio Railroad handled a total of 514 cars out of Cincinnati, and delivered a total of 496 cars of citrus fruit in the Chicago area. On the same exhibit [fol. 2261] I notice that the Erie Railroad handled a total of 50 cars out of Cincinnati, and delivered a total of 41 cars of citrus fruit into Buffalo. This traffic moved during a period of 232 days between the dates above mentioned, which indicates that an average of but about two cars per day were handled by the C. & O. out of Cincinnati. On this

basis alone it is obvious that it would be impossible to ascertain the expense of moving but a few cars of this particular traffic along with cars of other traffic, with any degree of exactness, that might approach what the real cost is.

The best practical way in which to estimate the expense of handling citrus fruit is the average unit cost per car mile as applied to miles of citrus fruit hauled. My reasons for that are that in allocating or estimating expenses, the object is to select a unit of expense that will, if possible, most nearly reflect the use of property by the particular traffic under consideration, and also the contribution that such commodity should make the net revenues on account of its special character, or value, or the character of service required in connection with its handling. In my opinion, the system average car mile expense unit when applied to this particular traffic, citrus fruit, which loads to an average of less than 17 tons per loaded car, will most nearly meet [fol. 2262] these requirements.

1. The average per car mile expense unit is the only single expense unit that will most nearly give proper weight to the expense applicable to traffic having an average car load substantially less than the average car load of all traffic, and also to the expense of handling empty cars.

2. Any other recognized expense unit, such as the average net or gross ton mile expense unit, when applied to citrus fruit traffic will understate the cost of such traffic because these units would be weighted down by the cost per ton mile of handling heavy loaded traffic such as coal and ore which is admitted to be less than the cost per ton mile of citrus fruit. This point may be illustrated by assuming the operation of two trains of say 83 cars of citrus fruit weighing 42 tons per car gross, or 3,486 gross tons, and 83 cars of coal weighing 84 gross tons per car, or 6,972 gross tons. The trains may be operated for say 100 miles within the standard 8-hour day. The crew expense would be say $35.00 for each train. By simple division it may be seen that the actual wage expense per gross ton of citrus fruit under the above assumption would be 1¢, while the cost per gross ton of coal would be ½¢. If the average unit expense is applied to the above problem, the wage cost [fol. 2263] allocated to citrus fruit would be $70.00 ÷ (6972

plus 3486) or .67¢ per gross ton, or about 33 per cent less than the actual wage expense.

By the use of the average car-expense cost in this instance the cost per car on citrus would be $35.00 ÷ 83, or 42¢. The average cost per car of coal would likewise be the same. Now, in putting this cost per car at 42¢ cost per ton, we would have given, in the case of citrus, 1¢. The 3500 cents divided by the number of gross tons, which is approximately 3500, because our 1¢ rules. In the case of coal traffic, we would have 3500 cents divided by the gross tons of coal traffic, which is 6,972 gross tons, and we get ½¢. In other words, on the basis of the example, my car mile expense unit reflects the exact actual wage expense applicable to the citrus and the exact actual expense applicable to the coal, whereas the gross ton mile unit would understate the actual wage expense of citrus fruit, about 33⅓ percent.

By Judge Way:

In traveling as much as 600 miles, the citrus fruit would go through in much less time than a load of coal, generally speaking. The real facts are, however, the wage cost per car of citrus is considerably greater per car and very much greater per ton on citrus as compared with coal, because that traffic usually moves in trains at much greater speeds and having less number of cars in the train than coal trains. [fol. 2264] The car unit (or cars handled) is the only basis that has ever been considered as being reliable in connection with the large yard and terminal group of transportation expenses amounting to over 24 percent of the total. That is Chesapeake & Ohio figures for 1929.

Inquiring what I have to say regarding the distribution of fuel and water expenses in train service to citrus as compared to the average of all traffic: The ton mile unit is not applicable because of the greatly increased train resistance per ton of lightly loaded cars as compared with heavy loaded cars. Also it requires approximately the same, or a greater, amount of energy to move a car of light loaded traffic at high speed as a car of heavy loaded traffic at slow speed. At this point I wish to call attention to one of the very fundamental laws of mechanics. The equation is expressed as—

$$\text{Energy} = \tfrac{1}{2} \times V^2$$

For easy calculation we will assume M (mass) equals the gross weight of a car and its contents, then—

$$\text{Energy (coal} = \tfrac{1}{2} (80) \times 20^2 = 16000$$
$$\text{Energy (Citrus)} = \tfrac{1}{2} (40) \times 40^2 = 32000.$$

The above illustration shows that it requires twice the amount of energy to produce a ton mile of citrus (40 tons gross per car) at double the speed of coal traffic. Energy means locomotive fuel and water consumption.

[fol. 2265] In the transportation group of the operating expenses, Freight Train and Yard and Terminal service amount to about 73 per cent of the total. This leaves 27 percent of the Transportation Expenses not accounted for, including a number of major items on which I will briefly comment.

The practical method of distributing superintendence and dispatching trains expenses is undoubtedly on the per car handled and the per car mile basis.

The disfribution of expenses on the per ton basis would understate station employee expense when applied to light loaded traffic and overstate them when applied to heavy loaded traffic. The per car handled or per car mile basis is undoubtedly the more equitable of the bases.

The per train or per car handled basis is without doubt the proper method of distributing such expenses in connection with signals and interlocking operations, crossing protection, telegraph and telephone operations. The use of the ton basis would distribute too much to the heavily loaded traffic of low value. No one can dispute that the proper basis for distribution of wreck clearing expense is the per car basis. The distribution of loss and damage on the per ton basis gives no weight to the value of the commodity which is manifestly improper, whereas the distribution on [fol. 2266] the per car basis will give some weight to the value of the commodity loaded in the cars.

The per train mile or per car mile basis is without doubt the proper one to distribute injuries to persons as injuries to persons are a function of those units, particularly the car unit rather than the other.

Of the maintenance of way group of expenses, it is generally conceded that approximately one-third of the total of such expenses varies directly with the weight of the

traffic that moves. This being the case, the question then is what is the effect of the light loaded car moving at high speed as compared with heavier loaded cars moving at slower or average speeds? In this case the laws of motion are again definitely effective. The light loaded car moving at the higher speeds will undoubtedly do as much damage to the track structure as the heavily loaded car moving at slower speeds. I can demonstrate this by measurements that have been made by the C. & O. maintenance of way engineers.

With reference to the remaining portion of the maintenance of way expenses, aggregating we will say 67 percent of the total which are not directly affected by use or weight of traffic, it is fair to say that the most logical unit for dis- [fol. 2267] tributing such expenses is to select one that will more nearly level out the value of the commodity that is handled in the cars. The car mile unit will affect this to a greater extent than the ton unit.

In this connection I wish to say that approximately 72 per cent of the total maintenance of equipment expenses fall in the group including superintendence, steam locomotive repairs and freight train car repairs. With reference to the latter two accounts the effect of speed is important. I realize that in this case there has been an elimination of certain maintenance of equipment expenses. I am dealing now with both locomotive and car expenses. Locomotives and cars operated at the higher speeds are the cause of greater wear and tear to the machinery and moving parts than when the same equipment is moved at slower speeds. This is caused on account of the greater shocks, etc., that are incurred at the higher speeds. Also in connection with the locomotive, it cannot handle as many cars at higher speed as it can at lower speeds. For this reason alone the cost of locomotive repairs per car mile moving at higher speeds handling light loaded traffic will be greater than the cost of locomotive repairs per car mile moving at slower speeds with heavier loaded cars.

In connection with traffic and general expenses I would again use the average per car mile unit as it is the only unit [fol. 2268] of the three that will reflect the value of the commodities hauled.

I fully agree with Mr. Coverston's statement regarding the various deductions that Mr. Kennedy proposed in con-

nection with the development of his exhibits No. 1 and No. 2. In addition, I wish to make this point:

Mr. Kennedy suggests that the operating and maintenance cost of coal and ore wharves and certain other accounts should be eliminated from a study of this kind. Granting, for example, that coal and ore wharves have nothing to do with citrus fruit, you cannot overlook the fact that there would be a large volume of coal and ore traffic moved from the point of origin (mines or docks) to or from the coal and ore wharves either located at tidewater or at the Lakes. The general effect of this large volume of coal or ore moving over the railroad makes it possible to handle citrus and other traffic at a less expense than would be so if there was not tidewater and lake traffic. The point is this: If the operating expenses incident to coal and ore wharves are deducted, it is also necessary to deduct the tons of coal and our traffic and the operating expenses incident to handling this traffic from point of origin to destination. It is well known that the operating expense incident to handling coal traffic [fol. 2269] is much less per revenue ton mile than other general and miscellaneous traffic; therefore, if you deduct the ton miles made by this traffic, and the operating expenses entirely caused by this traffic, the net result will necessarily be an unjustifiable increase in the unit expenses of handling the remaining traffic on the railroad. To sum up the situation, assuming the use of a representative system unit of expense as the basis for the estimate of total expense, undoubtedly all expenses should be included. Where the refrigerator cars are covered by a specific car rental, that is a proper deduction under those circumstances. The same reasoning would apply to the propriety of excluding l. c. l. expenses.

The question of whether it costs more to handle a heavy loaded car or a light loaded car, other things being equal, is a highly controversal one in the railroad world in the minds of both the operating and the accounting field I might say that I have been Chairman of the Committee on Economics of Railway Construction, which is a committee of the American Railway Engineers Association, for a number of years, and this committee has given attention to that subject, and it has never been able to properly find the answer.

I will first assume the heavy loaded car and the light loaded car to be moved in the same train. The two items

that might be different for the two cars are fuel and water. [fol. 2270] The heavy car would require a little more power to pull than the light car, however because of the greater amount of friction per ton of the light car as compared with the heavy car the fuel and water requirements would not be a direct proportion as to weight. The additional friction of the light car would tend to equalize the fuel and water requirements. Next I will consider two trains having an equal number of cars in each train, one having light loaded cars and the other having heavy loaded cars. Those trains to move between the same terminals at the same speeds. In this instance the heavy train will require a greater amount of fuel and water than the light train but not in the same relation of the weight because the train friction per ton of the light train will be greater than the train friction per ton of the heavy train.

By Judge Soper:

Your Honor, train friction or rolling resistance is the friction due to the axles and the flange resistance, the flanges of the cars against the rails and the axle resistance and the resistance of that kind. In other words, it is a drag on the car due to the fact that you have not a perfect bearing, friction less bearing and friction less flanges. That does not mean that the more closely you hold the wheels to the rail, [fol. 2271] the less friction. The fact is that there is about the same amount of friction in each case but in the case of the heavy car you have more tons of weight to divide into the friction, therefore your friction per ton of weight would be less in case of the heavy car than the friction per ton of weight in case of the light car. The divisors will be less. I can explain it, perhaps this way. You will have a rolling friction of perhaps between eight and nine pounds per ton. In other words, if the car weighs twenty ton, a 180 pull on that car ought to keep it in motion so far as the train friction is concerned. Yet, on the other hand a coal car will have a rolling friction of about between two or three pounds per ton, say three pounds per ton and it will take 240 pounds pull to keep that car moving on the level if there is not other friction involved except the train friction.

By Judge Chesnut:

I do not believe it is the greater inertia of the loaded car that tends to overcome the friction. I think the actual fric-

tion itself, that is the pulling power of the friction on the axles, and so forth is not a lot different, but in case of the heavy car you have more tonnage to divide into the total amount of friction, therefore you get a less friction per ton [fol. 2272] of car, although it is true in this illustration your coal car does take more pounds to keep it rolling at three pounds per ton. It takes 240 pounds of pull to keep a coal car rolling whereas on a light car of twenty tons it will take about 180 pounds.

By Judge Soper:

So far as the friction is concerned, we can make tests and arrive at the friction.

It has been proven by tests which we have made on the Chesapeake & Ohio Railway which shows it requires about double the amount of fuel to move an empty coal car, gross ton one mile, as compared with the loaded coal car gross ton one mile. In other words, on account of the rolling friction it takes more fuel to produce a gross ton mile of empty car than it does a gross ton mile of loaded car. I am simply comparing a certain number of empty cars with a certain number of loaded cars, and it would take more fuel to haul the loaded cars than it would the empty.

By Mr. Hall:

In this case of one light loaded car between two points as compared with moving a heavily loaded car between the same points with the same engine, special service given in each case, making two trips, the difference in cost of the two cars could not be measured. In fact, if there should be a difference in the case, it would be infinitesimal. I might say that the science is not so exact. You might run the same engine between two points light without any weight [fol. 2273] or tonnage back of the engine and one trip it might take more fuel to move that engine from A to B than the next trip because as I say there are so many things that enter into the equasion, the man power, the way the engine operates, the way the engineman handles his fuel and water requirements, and so forth. He may take more fuel in one case than in another, moving a light engine.

By Judge Soper:

Hauling a train of fifty loaded cars from Baltimore to Washington over the B. & O. Railroad and another train

of fifty empty cars, the same size cars but empty, between the same points, it would cost more to run your loaded train than it would your light train, if they are operated at the same speed and all other conditions be the same.

By Mr. Hall:

The last comparison which I wish to make is the operation of two trains between the same points, one having 100 cars of heavy loaded or tonnage freight such as coal, ore, sand, gravel, and so forth, and one having one hundred cars of light loaded merchandise cars requiring quick dispatch. In the first instance the tonnage train will be operated at a slow economical speed requiring a minimum amount of fuel and water per car mile, while the fast train will be operated at maximum speeds. This fact alone will increase the fuel consumption per car per mile equal to [fol. 2274] or in excess of the heavy loaded cars. The well known laws of motion are applicable in this case. Take the gasoline consumption in the operation of an automobile. If the economical speed is forty miles an hour and which you obtain an average of twenty miles per gallon of gas, you will find a marked decrease in the miles per gallon of gas if you drive at a speed of sixty or seventy miles per hour, the number of miles produced per gallon of gasoline will be greatly decreased at the higher speed, at the uneconomical speed.

I have just one more thought to express to the Court. In the Interstate Commerce Commission rules covering the separating of operating expenses between freight and passenger service under the caption "Transportation expenses", or "Transportation, rail lines," it will be found that practically all items of expenses in connection with the operation of mixed freight train service are distributed according to this rule on the basis of car miles. A mixed train is a train having passenger train cars and freight train cars, loaded cars, empty cars, and so forth.

By Judge Soper:

When I say that the gross ton mile theory would not be a fair basis to estimate the cost of hauling citrus fruit, that it would be a lesser cost than the actual cost, the fact that in citrus fruit we have a smaller tonnage per car is [fol. 2275] one of the elements. It is difficult for me to say

definitely that it is the largest element but it certainly is one of the largest elements, if not the largest element. The other elements, as far as my testimony is concerned, are a matter of record and they involve all of these special handlings where an engine and crew was called out to make a special move, and so forth.

By Mr. Hall:

A train mile unit is produced by moving a train one mile, whereas a car mile unit is produced by moving a car one mile. A train is an engine or motor, or more than one engine or motor, coupled with or without cars, displaying markers. Markers are signals, that will be placed on the rear of the tender or the rear of a caboose of a train if a caboose is attached, or the rear of the passenger train, to show all of the trainmen that it is a train, going somewhere.

The expense per train mile is a unit of expense that is used sometimes under some particular circumstances for estimating expense. In using train mile expense or car mile expense, the expense will be measured by the number of trains or cars moved one mile. In the use of the gross ton mile expense unit the expense is measured by the weight of the contents of the car, both loaded and empty. As ap- [fol. 2276] plied to the movement of light tonnage freight, such as citrus and perishable freight that is handled in special train service as shown in this record from points of origin in the south and Florida to packing plants the effect of measuring the expense of these special train movements by the application of the average system gross ton mile unit would undoubtedly be greatly understated because of the fact that the trains operated in this special service handle generally but a few cars per train and produce a relatively few gross ton miles as compared with the average for all trains.

Q. During the session yesterday Judge Chesnut asked the question if the average cost per gross ton mile unit expense as shown in Hodkinson Exhibits C-13 and C-14 might be less for some railroads not shown thereon and he made an inquiry about the Chesapeake & Ohio. Will you answer him as to that?

A. By computations made from the witness Kennedy's Exhibit 2, I find that the average gross ton mile expense for the Chesapeake & Ohio Railway in 1929 was 2.06 mills

or one-fifth of a cent. This was determined by dividing the total operating expenses chargeable to freight by the total gross ton miles shown on that exhibit.

Q. And this compares with the average system expense [fol. 2277] referred to and discussed when Judge Chestnut's question was asked, a quarter of a cent or two and one-half mills. Now, Mr. Teal, my last question: Witness Lamb, among other things, has inferred that a preponderance of coal traffic would have the effect of increasing the unit car mile cost. What have you to say in this connection?

A. An unsupported statement of that kind can have little weight in problems of this nature. The fact is that a railroad handling very little traffic other than coal may handle its coal traffic or it may handle all of its traffic at a smaller average cost per car mile than other railroads that do not have coal traffic in such large volumes.

The average expense per car mile for the various railroads, taken from Hodkinson Exhibits 1 and 2 are as follows: For the Chesapeake & Ohio I find the car mile expense to be 7.51 cents compared with the Baltimore & Ohio's 10.56; Pennsylvania Railroad, 10.95; R., F. & P., 9.05; A. C. L., 8.60; Seaboard Air Line, 9.27; A., B. & C., 12.46; C., N. O. & T. P., 8.09; L. & N., 9.78; Southern Railway, 9.40; C. & E. I., 10.31; C., I. & L., 12.76; Big Four, 8.69; Erie, 8.83; and E., I. & T. H., 10.44 cents per car mile. Taking 1929, without having made any definite investigation I would say, the C. & O. Railway handled a larger percentage of coal than any other railroad mentioned in that list that I have just read. The percentage of coal [fol. 2278] in 1929 for the C. & O. was between 80 and 90 per cent. I don't know the exact figures.

Cross-examination.

By Mr. Gwathmey:

The Chesapeake & Ohio Railway has a line into Richmond, Virginia. We do not participate to any important extent in the movement of Florida citrus fruit from Richmond to any territory east of Pittsburgh. "Pinching" a car means to move it by hand when a locomotive is not available. I have never undertaken to pinch a car loaded with fifty tons of coal as compared with an empty car.

By Mr. Hall:

Based upon my previous statement, it takes some more energy to pull a loaded car than an empty car.

By Mr. Clark:

Q. Mr. Teal, except for giving Mr. Hall your name and responding to inquiries from the bench, you have read all of your testimony—direct testimony?

A. Not quite all.

Mr. Hall: It is conceded he read the testimony and I handed your side a copy of it.

By Mr. Clark:

[fol. 2279] My map shows from Cincinnati to the principal cities shown there like Chicago, Fort Wayne, Pittsburgh, Indianapolis, Detroit, and the like, there is more than one route from Cincinnati. I told you that my jurisdiction as Transportation Engineer covered the entire system of the C. & O. Railway. The operating ratio of the C. & O. Railway for 1933 is something like fifty-nine or sixty per cent. It was a little higher back in 1928 or '29, as I recollect. The operating ratio is considered in the railroad world generally as a fair measure of the successful operation of a railroad. My recollection is that the total coal traffic, measured in tons was between eighty and ninety per cent of the total, on our road. Coal is a very heavy loaded commodity and our road operates on a very low operating ratio.

I will say certainly our low operating ratio is largely influenced by the handling of a large volume of coal economically in long trains and certainly the operating ratio is not influenced favorably by the operation of handling the perishables and citrus fruit in trains of lesser length than the coal trains. If we handled a less volume of coal we would expect a larger or increased operating ratio.

I know what the Kanawha group of mines is. It is a [fol. 2280] group of some hundred mines, in a district that they call the Kanawha Group. We admit that the gathering or assembling service from these hundred mines in the Kanawha Group and bringing them down to a junction point on our main line is expensive; yet after we get that traffic on the main line, in this particular instance, we move

that over the Allegheny Mountains. We consider our branch lines, generally speaking, to be short feeder lines and I might say that the number of train miles and car miles produced on those branch lines are relatively small in proportion to the total number of train miles and car miles. The operation or handling of one car over one mile of branch line is conceded to be more expensive than the same car over one mile of main line operation. When we get to the main line we have lots of cars and lots of tons. Traffic density is generally considered as a measure of the number of units that may be handled on a mile of railroad. You might call it train miles or gross ton miles or net ton miles. That is traffic density. It is the volume of business measured in different units. As we increase our volume of business and get long trains, that is where we get our low operating costs on the C. & O. Railroad. I will grant that our operating costs reflected favorably by what we might consider a lot of business and that is coal business. [fol. 2281] In the aggregate, the less weight you have got the less friction you will have. The point that I was endeavoring to make clear in connection with friction was that the weight of the car does not have a direct bearing on the amount of fuel required or draw-bar pull necessary to move the car. It is not in direct proportion because of the difference in the frictions of the two cars that may be compared. The less weight the more friction per ton; on the other hand, the more weight the greater the aggregate friction but not in direct proportion.

I think generally that all railroad carriers in this country assess their freight charges based on so much per ton.

Anthony Bonn, having been first duly sworn, testified on behalf of the petitioners as follows:

Examined by Mr. Eshelman:

I am a special accountant in the office of the Comptroller of the Baltimore & Ohio Railroad.

There was furnished to Mr. Hodkinson on March 29, [fol. 2282] 1934, for the period July 1, 1928, to December, 1933, a total of 208,795,448 loaded refrigerator cars, 177,461,986 empty refrigerator cars, or a ratio of empty to

loaded of 84.99. I should have said car miles. For the six years 1928 to 1933, the ratio of empty car miles was 65.56 per cent.

There was distributed as my Exhibit B-1 a statement entitled, "Comparison of Expenses per Total Freight Car Mile, Baltimore Division vs. Baltimore & Ohio System, Year 1929," together with an explanatory statement. This statement is one which was prepared by me or at my direction, and it is true and correct to the best of my knowledge and belief. That is also true of the narrative statement which accompanies it.

Mr. Eshelman: We ask that this be received as an Exhibit.

In the year 1929 the accounting department kept their records of the operating expenses divided between passenger and freight by the operating division. The Baltimore Division in the explanatory note is that division embracing generally the lines running from Brunswick, Maryland, through Washington, D. C., and Baltimore, Maryland, to Park Junction (Philadelphia). The records as kept by divisions are similar in every respect as those kept for the system. In fact, the system expenses are developed by [fol. 2283] adding together the various division expenses, and in the preparation of this exhibit the same method was used in arriving at the result, not operating expenses per total freight car mile, as was used by Mr. Hodkinson in arriving at his system expense on the same unit basis.

In the last column under the heading, "Baltimore & Ohio System," there is found the figure of 10.56 and a fraction cents per total car mile for the Baltimore & Ohio system. The purpose of this exhibit was to show that the similar expenses for the Baltimore Division, the more eastern division of the Baltimore & Ohio and the one over which citrus fruit moving from Potomac Yard to Baltimore, Philadelphia and to Park Junction for movement beyond, is a higher car mile cost than for the system as a whole.

By Judge Way:

The cost wouldn't have been very much less per car mile over the entire system, exclusive of the Baltimore Division. It is just the weight that the Baltimore Division would have on the total. It costs us, according to that exhibit, forty

per cent more to carry our freight over the Baltimore Division than it does over the remainder. The remainder of the road would be less than 10.56. This division represents on a mileage basis about ten per cent of the system and the expenses are, as indicated by this exhibit, forty per cent [fol. 2284] more. Considering the Baltimore Division against the remainder of the system, I would venture a guess, without working it out, that it would be slightly below ten cents. The last five lines, "Gross Ton Miles, Net Ton Miles, and Tare Ton Miles," have really no relation to the rest of the exhibit. The exhibit really stops right above that gross ton mile. I was requested to show the additional information on the bottom of the exhibit, but I was only attempting to reach the result above the line "Gross Ton Miles, exclusive of locomotive and tender."

By Mr. Beach:

Those gross ton mile figures, net ton mile figures, and tare ton-mile figures are the common units of traffic density that have been spoken of here today. Comparing the first column and the second column you get the relative density as between the Baltimore Division and the remainder of the system or the entire system.

By Mr. Eshelman:

It is also correct to say that some of those calculations were necessary in order to calculate the average tare weight per freight car.

Cross-examination.

By Mr. Gwathmey:

[fol. 2285] Explaining what I mean by the Baltimore Division, we are all familiar with Harpers Ferry. Harpers Ferry is not on the Baltimore Division but I am using that to give you a picture of about where Brunswick is and Brunswick is our large classification yard between our Cumberland Division and our Baltimore Division. All trains from the west at that time arrived in Brunswick yard and also the same is true of the trains from the East and they were classified for various destinations in either direction.

Leaving Brunswick and moving eastward we reach a common point called Point of Rocks where there are two branches of the road, the old historic main line which comes around by way of Mount Airy and Relay—doesn't touch Washington—and the other which is the passenger line passing through Washington and meeting this old main line at Relay. They there join and become the single line through Baltimore, on through Bay View which is the eastern terminus of Baltimore, then on through directly to Park Junction which is three miles further east than our passenger station in Philadelphia. In other words, it is the connection with the Reading System.

The Baltimore Division embraces approximately ten per cent of our mileage. The total mileage embraced in the Baltimore Division on the first track was 497.05 miles in 1929. The Baltimore Division takes care of what we know as our Shenandoah Division, running from Harpers Ferry down to Strasburg Junction, passes over what is now oper- [fol. 2286] ated by the Southern Railway, takes up again at Harrisonburg and goes into Lexington, Virginia. The road from Relay to Washington and from Washington up to Point of Rocks is a branch line. We recognize our old main line as the old historic main line around by way of Relay and Mount Airy and Frederick Junction and Point of Rocks. What we designate in our Annual Report as branch lines represents 70.30 miles of the 497.05.

By Judge Soper:

Our total mileage is, first track 5,658.22 miles, included in which we report 197.02 trackage rights, trackage rights being where we operate over other systems.

By Mr. Gwathmey:

I have filed an exhibit purporting to show that the freight operating expense on what I described as the Baltimore Division is approximately forty per cent higher than the system as a whole. In arriving at $21,170,031 purporting to represent the total expenses—freight—for the Baltimore Division, the so-called general office expense is apportioned on a train mile basis. The Mountclair shop repairs locomotives for other divisions. All steam locomotive repairs, known as pooled expenses. By pooled expenses we mean regardless of where the repairs are made, are what are

that we make a summation of all of these expenses for any [fol. 2287] one month and then use a divisor to distribute to the various divisions. In the case of steam locomotive repairs, depreciation of locomotives and retirements, that portion of the retirement expense that we have to charge to our operating expenses we apportion on the locomotive mile basis. That is what per cent the current locomotive miles on the Baltimore Division may be of the total system locomotive miles. I apportioned on that basis in arriving at the figures shown in my exhibit. That is the way the Accounting Department arrived at their apportionment of steam locomotive repairs on the Baltimore Division. I obtained the figures from the accumulated statements prepared in our department.

For all of the so-called general office expenses we apportioned on the revenue train mile basis. We have no terminals on the Baltimore Division serving another division. At Brunswick, which is the western terminal of our Baltimore Division, we join there with what we call the Cumberland Division but that is not a common terminal where expenses would be created chargeable to the two divisions. We have no terminals which are used by the Baltimore Division as well as other divisions.

Baltimore was the principal point on the Baltimore and Ohio system for delivery of coal and grain to ships for coast- [fol. 2288] wise and export movement. That is not true now. We have very extensive coal docks at Baltimore and they are practically idle now. We don't use the terminals in Baltimore that were constructed for the coal and grain and export business in connection with citrus fruit. I have included all of our expenditures of that sort in the system costs as applied to the citrus fruit traffic under this computation, in arriving at the figure of twenty-one million dollars shown on my exhibit.

I am familiar with the operating accounts and statistics of the Baltimore & Ohio Railroad in a general way. In one or two cases I have prepared statements and testified in rate cases before the Interstate Commerce Commission. I have access to the various records of the Baltimore & Ohio system. I haven't with me the information as to speed in miles per hour for road freight trains on the Baltimore Division.

By Mr. Clark:

The last figure on my exhibit happens to be $21.50. It is just a coincidence that it came out that way. All of those figures in the lower block are actual figures in the sense that they were accumulated from actual facts. I actually worked them out; I didn't take any system of prorating or addition and subtraction.

[fol. 2289] F. H. Clark, a witness on behalf of the petitioners, being first duly sworn, testified as follows:

Examined by Mr. Eshelman:

I am assigned to special duty with the Superintendent of Freight Transportation of the Pennsylvania Railroad at Philadelphia. I have prepared my exhibits C-1, C-2 and C-3, together with the explanatory matter attached to those several exhibits. The data shown in those exhibits and the narrative in explanation of them are true and correct to the best of my knowledge.

Exhibit C-1 is designed to show for the Eastern region and the New York zone, Pennsylvania Railroad, combined, the same information as was shown in the witness Hodkinson Exhibit for the Pennsylvania Railroad as a unit.

Exhibit C-2 shows the present loading efficiency on eastward through freight movement from Potomac Yard. It was based on a check made for three weeks in the year 1933, namely from February 12 to February 16, March 15 to March 21, April 21 to April 27, inclusive. The purpose of this exhibit is to show what percentage of engine capacity or engine rating was actually employed in the movement of those trains out of Potomac Yard for Baltimore, Edgemoor and eastern destinations.

Turning to the last column headed "Details," this exhibit indicates that 82.1 percent of the potential capacity [fol. 2290] of the locomotives was employed over the sector from Potomac Yard to Baltimore, and so on down. The rapid drop from 82.1 percent to 59.2 percent and 56.5 percent as the trains proceed northward is explained by the fact, indicated in Mr. Menaugh's testimony, that trains carrying perishables must be loaded out of Potomac Yard to cover the grade conditions into Baltimore and then must

not be stopped in their northward progress to fill out with other freight and that proceed with an engine capacity that is not then in use.

Exhibit C-3 is intended to illustrate the difference in loading and the difference in tare tons per ton of loading, taking two trains from Potomac Yards to Harsimus Cove, a train known as M. D. 12, which carries largely perishable when available, and a train known as M. D. 24 which carried during the period indicated comparatively little perishable and other high class freight. On this exhibit in line 13-A the expression "Tare ton of cars" should be "Tare tons of loaded cars."

The vital figures in this exhibit are expressed in lines 21 and 22 wherein it is shown that for each ton of lading on M. D. 12 that 1.76 tare tons must be hauled; or M. D. 24 that 1.32 tare tons must be hauled. In item 22 the equivalent figures are 1.76 and 1.18. This exhibit does not take into consideration the empty return movement of refrigera-
[fol. 2291] tors or of all cars. The proper figure for empty return loading of refrigerator cars on the Pennsylvania system is 89 percent of the total loaded movement. That covers the six year period from 1928 to 1933. This was the figure that was furnished the witness Hodkinson for our company.

The ratio of empty to loaded car miles for all traffic on the Pennsylvania is 58.3 per cent. If you apply, in the case of M. D. 12 the return loading of 89 per cent and in the case of M. D. 24 the return loading of 58.3 per cent, considering the empty load movement and the loaded movement together, you would get for M. D. 12 3.3 tare tons per ton of lading and for M. D. 24 2.1 tare tons per ton of lading. That means in the case of M. D. 12 for each ton of lading sent to market the carrier has hauled 3.3 tons of tare weight, and similarly for other traffic 2.1 tons of tare weight.

Line 18 expresses the contents of lading in the two trains, one being predominantly a perishable train and the other non-perishable. In the case of M. D. 12 we have but 1.085 tons as against 1,533 for M. D. 24. That completes what I had to say about that exhibit except to state that the new figures 3.3 and 2.1—the percentage of increase is 57.1 per cent as compared with the 49.2 per cent for the tare weight without considering empty return movement.

From my knowledge of the way in which citrus and other [fol. 2292] perishables are handed on the Pennsylvania as compared with the traffic generally, I believe citrus to be more expensive. The same class of engine handled both of these trains, M. D. 12 and M. D. 24, out of Potomac Yard. Sometimes beyond Baltimore we use a different type of approximately 600 tons greater rating than the L-1 S which is used out of Potomac Yard.

By Judge Soper:

On line 2 of Exhibit C-3 I have 14,616 cars as the aggregate number of cars during this period on train M. D. 12 and beneath that I have the number of empty cars 27. That means that there were 27 empty cars carried forward. It does not purport to show the return of those cars. They were empties probably destined to the New Haven Railroad or some other connecting line.

By Mr. Hall:

I was requested by counsel to prepare a statement following the form and, as far as practicable, the principle used by Mr. Kennedy of the L. & N. in the preparation of his Exhibit No. 1 which was served upon counsel for the northern lines prior to this hearing, using freight car miles in lieu of gross ton miles and adding, however, similar figures for the Atlantic Coast Line and the Seaboard Air Line. That exhibit is marked Clark Exhibit C-4. It was prepared [fol. 2293] by me and I swear it is correct.

Mr. Hall: I have not intended for this witness to do more than identify this exhibit and then file it so it can be used.

Cross-examination.

By Mr. Gwathmey:

The boundary of the New York zone as described in these exhibits is Liddonfield, Pennsylvania, which is approximately fourteen miles east of Philadelphia. That is the Pennsylvania Railroad portion. Perhaps I should qualify that. East of Liddonfield also includes that portion of the New York zone which is not recognized as P. R. R., namely, Long Island Railroad. In other words, the New York zone

itself, regardless of any qualifications in that territory east of Liddonfield. Pennsylvania, is generally the same territory exclusive of the Long Island Railroad. The western point of the eastern region can be defined by drawing a line through Renova and Altoona, Pennsylvania. Renova is approximately in a direct line north of Altoona but there is no large city from which to point it out. It is very nearly directly south of Rochester, New York. The Central region extends west from that line to a line which would run approximately from Sandusky, Ohio, through or near Colum-
[fol. 2294] bus, to Cincinnati. The western region embraces the territory west of that line.

Mr. Gwathmey: May I note an objection on the record to this Exhibit C-1 upon the ground that it is a mere computation showing the results in the aggregate with nothing to support the figures.

E. M. Albert, a witness on behalf of the petitioners, being first duly sworn, testified as follows:

Examined by Mr. Hall:

I am E. M. Albert, Philadelphia, Pennsylvania; Chief Statistician, office of Vice President and Comptroller, Pennsylvania Railroad Company. I am familiar with Kennedy's revised Exhibit No. 1 which was served on counsel for the northern lines.

I was requested by counsel to prepare a statement following the form and, as far as practicable, the principle used by Mr. Kennedy in the preparation of his revised Exhibit No. 1, and showing similar figures for the Atlantic Coast Line and the Seaboard Air Line as Mr. Kennedy showed for the Baltimore & Ohio, Pennsylvania Railroad and R., F. & P. I prepared it and it is true to the best of knowledge and belief.

[fol. 2295] Judge Soper: My suggestion as to this exhibit is that the witness introduce it and that you make use of it when Mr. Kennedy goes on the stand.

F. H. CLARK, a witness on behalf of the petitioners, being recalled, further testified as follows:

Examined by Mr. Eshelman:

The witness Kennedy produced copies of an exhibit relating to the loading of freight trains out of Potomac Yard to destinations on the Pennsylvania during certain periods of 1928 and of 1932. The destinations were Harsimus Cove and New York. This also covered destinations on the Baltimore & Ohio, but the exhibit did not purport to show destinations. It showed simply the trains dispatched from the yard. I have prepared in rebuttal of that exhibit a statement entitled "Freight train loading, number trains, number cars, dispatched from Potomac Yard to Pennsylvania and Baltimore & Ohio Railroads, certain periods 1928 and 1932." One period that I took was the same as one period which he took, namely, 1932. The exhibit that was submitted covering a period from November 9, 1928, to June 30, 1929, as a separate item. I was unable in the length of time to make that complete check but I did check the week December 7th to 13th, 1928, as representative [fol. 2296] and as comparable with the week of December 6th to 12th, 1932. According to my understanding he used certain trains only out of Potomac Yard, and there was an error, according to my understanding, in the tonnage he showed in connection with those trains, in that he used adjusted tons instead of flat tons and compared them with flat tons.

E. A. HODKINSON, a witness on behalf of the petitioners, being recalled, further testified as follows:

Examined by Mr. Beach:

I have developed the information which was requested by Mr. McGehee in the course of his cross-examination and also the information that was requested by Mr. Clark.

The average per car revenue accruing to the Pennsylvania Railroad north of Potomac Yards on shipments delivered to it by the Southern Railway and destined to Baltimore, Maryland, is $45.96. On the average car delivered to the Pennsylvania by the R., F. & P. at Potomac Yards destined Baltimore the average car revenue is $19.76. To

Philadelphia, Southern Railway $51.51, R., F. & P., $36.94. To New York, Southern Railway $65.42, R., F. & P. $54.68. The proportion north of Potomac Yards accruing to the Pennsylvania is based on the total revenue north of Rich- [fol. 2297] mond arising out of the Commission's decision. The total revenue north of Richmond is $56.45 to Baltimore as compared with $45.96 north of Potomac Yards so that the Commission's prescribed division allows a difference of $10.49 for the additional 110 mile haul. North of Richmond to Philadelphia the Commission's prescribed divisions produce an average per car revenue of $61.67 as compared with $51.51 north of Potomac Yards. The difference in this case for the additional 110 mile haul is $10.16. North of Richmond to New York the average per car revenue under the Commission's divisions is $76.07 as against $65.42 north of Potomac Yards. The difference in this case being $10.65 for the additional haul of 110 miles Richmond to Potomac Yards. This demonstrates, it seems to me, the unreasonably low basis of the divisions prescribed by the Commission north of Richmond.

I have computed a few illustrations to show that the revenue does vary, dependent on the length of the haul in spite of the fact that you get that same factor north any distance under 240 miles. The difficulty in depicting this situation graphically lies in the fact that you have to consider the same point of origin to each of the destinations that would fall within certain mileage blocks of under 240 miles. A few examples that I have found in looking through my Exhibit No. C-1, all the shipments in question had their origin at Frostproof, Florida. From Frostproof, to Day- [fol. 2298] ton, Ohio, the mileage north of Cincinnati is 55 miles. The through rate is $1.02. The northern percent is seventeen. And the northern proportion expressed in cents per 100 pounds is 17.3 cents. To Indianapolis, from the same origin—all these points are from the same origin —the distance north of Dayton is 110 miles, the rate is $1.03 through. The northern percent is seventeen and the northern proportion 17.5 cents per hundred pounds. To Columbus, 114 miles and only four miles more than Indianapolis, the rate is $1.04, the percent seventeen, and the proportion north 17.9 cents per hundred pounds. To Defiance, Ohio, 179 miles, through rate $1.07, percent seventeen, northern proportion 18.2 cents per hundred pounds.

Toledo, Ohio, 197 miles, rate $1.09, percent seventeen, proportion 18.5 cents per hundred pounds. Cleveland, Ohio, 239 miles, rate $1.11, percent seventeen, proportion 18.9 cents per hundred pounds. That results from the fact that essentially the rates which I am dividing are built on the distance principle, and as you get further north of the Ohio River you have a gradually increasing rate.

I have prepared two exhibits, which are offered as Exhibits C-16 and C-17 which consolidate the single line hauls on the Baltimore & Ohio and Pennsylvania respectively showing the net result of applying the aggregate expenses to the aggregate revenues. They are true and correct to the best of my knowledge and belief. C-16 deals with the [fol. 2299] Baltimore & Ohio.

This statement covers a total of 3,275 cars and the revenue which would accrue to the Baltimore & Ohio under the Commission's decision exceeds the aggregate expense in the amount of $17,811.41. I might say in this connection, Mr. Beach, that this statement covers the shipments that were detailed in Exhibit C-7 as to Baltimore & Ohio deliveries, except these cars which were confined to Washington. I eliminated those cars because of the fact that the divisions to Washington are not involved in this proceeding. The service which the Baltimore & Ohio performs at Washington is in the nature of a switching service for which they get a stated amount in cents per ton under a division sheet. The amount of that is ninety cents per ton.

The statement covering the Pennsylvania, Exhibits C-17, covers 15,782 cars, and the result as shown on page 3 indicates a deficiency of $62,477.77 in the revenue as compared with the total estimated expense. I may say in connection with both this exhibit and the preceding one that these figures, both as to revenue and expense are confined to the Pennsylvania Railroad. They do not include any proportion to the R., F. & P. and the amount of revenue that we have shown as accruing to the Pennsylvania Railroad represents that road's proportion of the revenue north of Richmond as determined from the application of the current per cents.

[fol. 2300] Mr. Beach: We offer Exhibits C-16 and C-17 in evidence.

Fifth Day

Baltimore, Maryland, September 21, 1934.

Met pursuant to adjournment.
Present: Same parties as heretofore noted.

Colloquy

Mr. Reidy: If the court please, before the defendants put on their testimony, on behalf of the Interstate Commerce Commission and the United States, and consistent with their objection that the record in this case should be confined to the record before the Commission, an objection which has already been overruled, it will not be the purpose of either the United States or the Commission to put on any testimony, but we will rely upon the presentation by the southern lines.

Mr. Gwathmey: If your Honors please, with the idea of conserving of time and avoiding unnecessary duplication of the record before the Commission, I have prepared in printed form the brief abstract with appropriate references to the Commission's record, of the testimony of operating [fol. 2301] officials with respect to the physical transportation of citrus fruit. If the Court will permit me to hand a copy of this paper to each member of the Court and then make a very brief explanatory statement of the points that are covered, I think it will save the necessity of putting on four or five operating witnesses.

Note: Mr. Gwathmey then handed to each member of the Court and to opposing counsel a printed paper entitled "Abstract of testimony of operating witnesses for southern roads, at hearing before the Commission in Docket Nos. 24069 and 24160, as taken from brief for southern carriers, dated March 15, 1932, in said proceedings."

Mr. Gwathmey: I may say that this is technically an exact duplication of the abstract which was contained in our brief before the Commission and counsel for the other side have copies. However, I will give each of them a copy of this. I want to say also that these operating witnesses are here present and will be available for questioning either by the Court or for cross-examination by opposing counsel if they so desire.

Very briefly, the purpose of this testimony is to describe the nature of the service which the southern roads perform, and it commences with a description of the originating ser- [fol. 2302] vice in the Florida Peninsula, and first an explanation of the miles of railroad which the Atlantic Coast Line and the Seaboard Air Line operate in that State. It will be seen that approximately forty percent of the entire mileage of the Coast Line system is in the State of Florida and about the same percentage for the Seaboard. It will be seen also from the maps that the lines of these railroads form a network of tracks in the State of Florida with a great many branch lines extending out into the perishable producing sections, many of those lines originating no traffic except citrus fruit and vegetables and all of them being an area of very light traffic density. For instance, citrus fruit originated in Florida in 1928-1929 at a total of 139 stations on the Atlantic Coast Line.

Judge Soper: Mr. Gwathmey, may I ask generally, not to anticipate too much, so that we may know the end toward which you are tending, what is the general purpose of this? Does it reflect upon the cost and difficulty of serving under which the southern lines are laboring? Is that the end of the thing?

Mr. Gwathmey: Yes, sir; that is the purpose.

Mr. Gwathmey: There is a description here of the loading carriers, showing that these stations where the fruit [fol. 2303] originates are on branch lines, more than fifty percent originating on branch lines of the railroads, and that the carriers must provide additional service at each originating point, not only placing the empty cars but assembling the loaded cars for northbound movement.

Judge Chesnut: Is there any possibility of making the effect of the testimony concrete and specific as to the actual cost?

Mr. Gwathmey: No, sir; we made no such effort before the Commission and we make no such effort here.

Judge Soper: Is that because in your view it is not possible to do so?

Mr. Gwathmey: Yes, sir, in any accurate way.

On the 5th page is a description of the wide variation in the loading at the different shipping points, showing how it is necessary for the railroads to provide this service under very disadvantageous conditions, and frequently to

operate special trains for considerable distances only to pick up one or two cars of citrus fruit or vegetables.

On the eighth page is a description of the cost to originating carriers and the enhancement of this cost which is attributable directly to the use of refrigerator cars instead of the ventilated box cars which are owned by the originating car-
[fol. 2304] riers. For many years these perishables moved in these ventilated box cars, but at the present time practically all move in refrigerator cars. That means that the Florida lines have a very heavy investment in equipment which, is to a large extent, idle. For instance, as of June 30, 1928, the Atlantic Coast Line owned 16,512 ventilated box cars representing an investment of $19,000,000, but the use of those cars for these perishables has almost entirely been discontinued by the shippers.

In 1928, for example, the Atlantic Coast Line paid in car rental on refrigerator cars, that is cars that they rent from the Fruit Growers Express Company, and use in place of their railroad owned cars, they paid car rental alone of $1,470,000. The testimony further deals with the vast amount of empty mileage which the railroads have to perform in bringing refrigerator cars from the North for long distances and distributing them out through the loading sections of Florida. It also shows the heavy additional tare weight tonnage which they are required to handle because the refrigerator car is so much heavier than the ventilated box car.

On page 15 of the memorandum I would like to call your Honors' attention to some figures which show the increased amount of train service in the originating districts under present as compared with former conditions. For exam-
[fol. 2305] ple, by reason of the necessity of placing these cars in the loading districts as and when the shippers want them and then assembling the cars after loading and getting them to market on schedule time, the railroads have to perform a vast amount of extra train service exclusively for the use of this traffic. For instance, in 1928-1929 the Coast Line operated extra trains in the loading districts for the special purpose of placing empty equipment and picking up loaded cars, which represented in the aggregate 375,632 train miles. The estimated extra expense represents $330,-638. In the same period, the Seaboard, in connection directly with this pick-up service performed a total of 129,-

207 freight train miles, 20,302 additional switching hours, and 6,552 additional yard engine hours. These special trains are frequently run for a distance of seventy-five or 100 miles to pick up one or two cars of citrus fruit. You have to take an engine, haul it down into the loading territory and haul it back with nothing except one or two cars of this fruit.

Now, on page seventeen is a discussion of the diversion and reconsignment feature from the standpoint of the Southern lines, showing that these cars of citrus fruit are very frequently diverted in transit after leaving Florida, in fact, nearly every car is diverted at least once and many of them are diverted two or three times.

On page nineteen is some discussion of the cost of these [fol. 2306] diversions, showing, as mentioned in the Commission's report, that the Seaboard Air Line submitted an estimated cost of each diversion of $4.24.

Now, in particular, on pages twenty and twenty-two is a description of the train operations north of Jacksonville showing that by reason of the numerous diversions and reconsignments of the traffic it is impossible for the Southern roads to bring anything even resembling a solid train of these perishables for the reason that the trains are broken up at so many junction points in order that cars may be cut for diversion purposes, and while they are able to run solid trains at times, they are only for very short distances. For instance, from Jacksonville to Waycross, Georgia, Waycross happens to be one of the principal diversion points on the Atlantic Coast Line. We illustrate that, if your Honors please, by taking a typical train, referred to on page 22 of this memorandum, where we selected fifty-six cars of citrus fruit which started from a point in Florida on February 22, 1929, and pursued the movement of that train up the line showing where cars were set off, how many were set off and showing that out of the fifty-six cars which started in the original train only seventeen of them actually moved through to Richmond, and then in four separate trains and on different dates.

[fol. 2307] Judge Chesnut: Now, would you suggest that diversions south of Potomac Yard which do not produce a joint through rate in which the Northern lines participate, does that properly have an effect on the division of the joint through rate?

Mr. Gwathmey: It has a very direct effect on the cost to the Southern carriers for the transportation south of Richmond for the reason that the diversions have to be performed along that route.

Judge Soper: The service is pretty general in connection with diversions both north and south of the gateways, as I understand it.

Mr. Gwathmey: I don't say the frequency of diversions north of the gateways is anything like it is south, and the Commission found as a fact, as your Honor will gather from the report, that the expense of reconsignment and diversions for the southern lines is much in excess of the northern lines.

Judge Soper: Judge Way has suggested that these diversions are done voluntarily by the carriers and the fact that they are done without charge perhaps does not flow from any order of the Commission.

[fol. 2308] Mr. Gwathmey: That is correct, your Honor, but for many, many years, it has been the uniform practice in the South in handling these perishables and citrus fruits to perform these reconsignments and diversions without charge and the carriers have never, up to this time, been able to get a charge.

Judge Soper: It is probably the matter of competition which makes it necessary once the practice is started to keep it up.

Mr. Gwathmey: No, sir; there is no competition that I know of that affects our diversions.

Judge Soper: Just the practice of the business?

Mr. Gwathmey: It is a historical fact, you might say, something that has gone on for years and years.

Juge Soper: It is being done with the full knowledge and apparent approval of the Commission?

Mr. Gwathmey: That is true, and it is something, your Honor, that is almost necessary in the marketing of these early fruits and vegetables. For instance, when a shipper starts a car rolling out of Florida, he very seldom knows where that car is going. It depends on market conditions. He will bill it up to Waycross, Georgia, and before it gets [fol. 2309] to Waycross he will divert it to some other place because he thinks there is a better market and it is almost essential to the industry itself. On page 24 is a description of the increase in the operating cost of the southern lines that grew out of the shortening of the perishable sched-

ules in 1930 and '31. They shortened the time of delivery at New York, for instance, by twenty-four hours, making a fourth morning instead of fifth morning delivery. You see, your Honors, the schedules of these perishable trains have to be arranged with two things in mind. The first is to meet the convenience of the shipper in the loading district. He wants all of daylight for loading his produce. The next is to get the train to New York City in time for the marketing hour at New York City. I think Mr. Menaugh explained that these vegetables and citrus fruit are unloaded and put in position to be marketed by a certain time on which the market opens. That is the practice and custom in New York, so the schedules have to be arranged with those two things in mind and it was shown that when we did shorten the schedule, the southern lines took up twenty-hours and fifteen minutes of the running time.

The Pennsylvania sets what they call the zero hour at Potomac Yard which means that unless a train is delivered to the Pennsylvania and made ready to be moved by that zero hour, it can't make that particular morning's market, [fol. 2310] it has to be held over. It is also shown that as a result of this shortening of the schedule and improvement of the service both the Atlantic Coast Line and Seaboard Air Line reduced their train tonnage about twenty percent in their perishable trains. That, in brief, is a description of what is shown here except that in addition there is a description of the transportation service south of the Ohio River which was put in by operating witnesses for the Southern Railway, the Louisville & Nashville and others. Commencing on page 28 is a digest of the testimony of the Southern Railway on that subject by Mr. Mitchell, showing how the schedules were shortened and how much time was taken up by the lines south of the Ohio River, showing the reduction in tonnage that the lines south of the Ohio River have had to make in these perishable trains as compared with the ordinary freight, showing the number of diversions and showing the empty mileage.

I would like to call your Honors' attention to one statement made by Mr. Porter, a witness for the Louisville & Nashville, at page 35 of this memorandum. Speaking of the trains handled up to Cincinnati and there turned over to the northern roads Mr. Porter said, "I checked these trains from November 1, 1930, to June 30, 1931, and found

we operated during this period a total of 240 citrus trains, the average tonnage on them being only 1,260 tons against [fol. 2311] an average of 6,000 tons of ordinary freight, a loss of 79 percent. In the same period we operated 763 ordinary freight trains with full tonnage of 6,000 tons and two fast freight trains per day with their weight of 3,075 tons satisfactorily filled."

Without taking up the time of the court further, I think I have given your Honors a general outline of what this testimony purports to show. The witnesses are here present and if your Honors desire to question them they are available. They are also available for cross-examination with the exception that Mr. Mitchell is now dead. He was a witness for the Southern Railway but we will have a substitute here, if necessary, who is familiar with this testimony and can answer any questions.

W. B. PORTER, called by the petitioners for cross-examination, testified as follows:

Examined by Mr. Hall:

Referring to my testimony which has just been quoted by Mr. Gwathmey, appearing at page 35 of the abstract of testimony of operating witnesses which he has offered to the court, I stated that during the period from November 1, 1930, to June 30, 1931, there was operated by the Louisville & Nashville a total of 240 citrus trains. They were not com- [fol. 2312] posed entirely of citrus fruit at all times. In my judgment they were not so constituted in excess of ninety percent of the time. We call them citrus trains because they were put on for the purpose of handling citrus fruit. We called them a citrus special. At the beginning of the season we would start out with maybe one or two cars. That goes up to a peak. Then as the season closes it drops down. The peak of the season is after the first of the year. We naturally couldn't run that train with one car or two cars 481 miles, so we put in that train any other perishable that may be available or any high class merchandise just as the northern roads do to try to fill out the tonnage but there was not enough of this tonnage to give us anything like a

full train. I couldn't testify as to what the practices are on the northern railroads but I know that railroads generally, where they operate perishable trains, if they haven't any tonnage to operate them with, they will fill the tonnage out with other high class freight such as merchandise.

For the purposes of this court's consideration I have offered as typical of Louisville & Nashville's operation the fact that we operated during the season of 1930-1931 a total of 240 citrus trains, but I don't think that is typical of southern operation. It is typical of handling citrus fruit and other perishables for the Louisville & Nashville, but not in the Southern lines. Those 240 trains average around thirty or forty cars of citrus and perishables per train. They will [fol. 2313] average with citrus and other perishables, or any other freight we have got, thirty to forty cars. The record is available as to the number of cars of citrus fruit in the citrus trains of the Louisville & Nashville which were handled over this season of 1930 and 1931 but I don't see what bearing that will have so I simply gave you the tonnage in those trains. I didn't testify it was citrus tonnage. They were citrus trains. I could not testify with respect to the Southern Railway's practice and the number of citrus trains and cars in citrus trains handled into Cincinnati by them during the same season.

By Mr. Gwathmey:

I assist the Superintendent of Transportation of the Louisville & Nashville Railroad. I represent him out on the line of road. I have been a trainmaster and assistant trainmaster and inspector of trains more than twenty-five years on the Louisville & Nashville Railroad.

W. L. Dixson, called for cross-examination by the petitioners, and having been first duly sworn, testified as follows:

Examined by Mr. Hall:

I am W. L. Dixson; residence, Wilmington, North Caro- [fol. 2314] lina. I am connected with the Atlantic Coast Line Railroad where I have been continuously employed for the last thirty years in the Transportation Depart-

ment. At page 4 of Mr. Gwathmey's abstract of testimony of operating witnesses, it is stated that in 1928-29 citrus fruit originated at a total of 139 different stations on the Coast Line, that at ninety-nine of these stations 173 citrus packing plants were located. I have no figures showing the percentage of the total citrus originated on the Atlantic Coast Line in Florida at these 99 stations at which there were citrus packing plants. I don't think it would be easy to compute that information from my Exhibit 66 and I don't think it could be computed accurately from any of my exhibits. I didn't attempt to make any effort to show to the Commission the extent of concentration of citrus fruit and other perishables which moved from these packing house centers in Florida to northern Florida junctions.

On page 15 of this memorandum of testimony my Exhibit 71 is referred to as showing the special train mile costs in connection with the collection of this citrus fruit. It is correct, as stated in that memorandum, that this extra expense was computed upon the use of system out-of-pocket train mile costs. I don't know the reason why that unit was selected, but that was the only reliable statistics we could get that would not be contested. We were figuring [fol. 2315] on the extra train miles so naturally we could use the train mile costs and not the gross ton mile unit.

GEORGE W. LAMB, a witness on behalf of the defendants, having been duly sworn, was examined and testified as follows:

Examined by Mr. Gwathmey:

I am George W. Lamb, General Auditor of the Atlantic Coast Line Railroad Company; residence, Wilmington, North Carolina. I have been connected with the railroads and their operations for something over thirty four years. I began service with the Louisville & Nashville Railroad, Louisville, Kentucky, in October, 1900, and served in various capacities with that company—clerical, statistician, second assistant comptroller and senior assistant comptroller. On March 1, 1918, I was appointed staff officer in charge of accounts, by Mr. C. H. Marcum, Regional Director under Federal operation of railroads, and located at Atlanta, Georgia. I served in that capacity and under

Mr. Marcum's successor, Mr. Winchell, and on March 1, 1920, I returned to the Louisville & Nashville, at Louisville, as senior assistant comptroller. On March 1, 1921, I was appointed general auditor of the Association of Railway Executives, to check up the accounts of the American Rail-
[fol. 2316] way Express Company for all carriers in the United States, having offices in New York, Philadelphia, Chicago, and Chattanooga. I served in that capacity until June 1, 1930, when I resigned to accept my present position as general auditor of the Atlantic Coast Line.

I began my cost studies of railroad operation about 1908. It so happened, in 1918 during Federal control, I was on the committee which prepared the operating statistic forms now in use by the Commission, with some subsequent modifications. During 1920 I was also on the committee representing all roads in the South in connection with the determination of maintenance allowance for the guaranteed settlement under Federal railroad operation. In November, last year, Coordinator Eastman appointed me on two committees; one was known as the Operating Cost Committee, dealing with the terminal status in connection with car load traffic survey which the Coordinator has now under way, reports for which are in and the final report by the Coordinator, Mr. Eastman, will be rendered some time in the fall. Mr. Fell mentioned during his testimony that Congress had called on the Coordinator to develop the cost of railroad operation. As the result of that, Mr. Eastman appointed a committee known as the Cost Finding Committee, and I am serving on that committee in an advisory capacity. [fol. 2317] That committee was formed to develop a method of ascertaining cost of handling freight for the determination of the rates charged.

My experience has not been limited to that of cost accounting from a purely abstract standpoint, but I have also had occasion to study these matters directly in connection with railroad operation, including the road that I represent, as well as other railroads. I have examined the exhibits filed in this case by Mr. Hodkinson, purporting to show certain costs incident to the handling of citrus fruit. I desire to submit certain criticisms of Mr. Hodkinson's formula as used and explained by him. There are four fundamental errors in Mr. Hodkinson's formula, among others. The first and most important is the failure to make any distinc-

tion between line haul and terminal expense. The second is the use of the total freight car miles. The third, that it assumes the same costs per car mile for all commodities; and, fourth, attempts to find the cost of handling one special commodity, which it is recognized by all statisticians and cost accountants cannot be accomplished without special investigations and, generally speaking, nor by the use of system averages. I will take up each of those points in the order named.

The first is the failure to separate operating expenses between line haul and terminal. As the Court knows, termi- [fol. 2318] nal expenses have a fixed status and are not properly divisible on a moving unit, as you might state. On the other hand, line expenses are affected by distance and are properly divisible on some unit indicating distance. The effect of including in the car mile cost both terminal and line haulage expenses has been to make both factors equal.

The second is, the use of the total freight car mile costs assumes the same cost for an empty car as for a car containing coal. A car of coal loads approximately 55 tons and the tare weight is approximately 22 tons, or you would have 77 tons—gross tons, as we term it; I think that definition has been explained to you that the gross tons represents the tare weight of the car plus the net tons loaded in the car. Now, from Mr. Hodkinson's Exhibit, on line 9, he shows that the cost per car mile for the B. & O. is 10.5¢ (I use the round figures) approximately. Now, if you assume a haul of 200 miles, according to Mr. Hodkinson's figures the cost would be $21.00, or 10.5¢ multiplied by 200 miles. That cost would be identically the same whether it be an empty car with a tare weight of 22 tons or a car loaded with coal which would have a combined or gross tonnage of 77 tons. Now let us show the absurdity—it seems to me an absurity—by a simple calculation: The tare weight of an empty box car is 22 tons; now if we haul that car 200 miles, [fol. 2319] we have 4,400 gross ton miles, and assuming 3 mills as the cost per gross ton mile for haulage expenses, multiplying the 4,400 gross ton miles, we would have a cost of $13.20. Now taking the same car with a tare weight of 22 tons and adding 55 tons of coal and getting our 77 gross tons and multiplying that by 200 miles, we have 15,400 gross ton miles. Now if you

would multiply the 15,400 gross ton miles by three mills your cost is $46.20 as compared with the cost of $13.20 for handling an empty car. Yet under Mr. Hodkinson's formula the cost is identical, and I think this clearly shows the absurdity of that assumption. Yesterday, you will recall that Mr. Menaugh admitted that it cost more to handle a car weighing 50 tons than it did to handle a car weighing 20 tons, because of the greater tonnage.

Mr. Beach: He said *haul* a car, Mr. Lamb. He distinguished between hauling and handling.

Witness (continuing): I think the principal fallacy of the Eastern Lines' cost figures—if you will notice, practically all testimony has stressed the terminal, that the car is the measure of the terminal. Now, that just suggests a thought; I would like to go back just a moment to explain to the Court so that you can follow me a little more clearly [fol. 2320] later on:

In his separation of operating expenses there are numerous factors that are not divisible on any one unit. For example, you have your terminal expenses; now those are properly measureable on a car basis, in other words, it costs no more in switching to switch an empty car than it does a loaded car, but that is in switching service. Then you have the next item, your line hauling expense; that is properly distributable on the proper unit of measure reflecting distance. Then there is another segregation that ought to be made: There is interchange expense; there is a difference in interchange expense from your originating or terminating expense, and that is usually divisible on a car mile basis. Then you have your station expenses. Your station expenses are not affected by car mile. Your labor in the station is platform labor and that applies exclusively to l. c. l. freight, because carload traffic is loaded and unloaded by the shipper. A little later on I will show that.

There are tremendous amounts of money reflected in these operating expenses for items which are not properly distributable on a car mile basis, which I will endeavor to show you.

Now you take your station accounts: That has to be subdivided between two different accounts; one is platform labor that is properly divisible on a ton basis, the other is

[fol. 2320a] your clerical labor and that has to be divided between carload traffic and less than carload traffic.

So that there are so many things in the determination of the cost of handling any one commodity, I think that when you use the system average without the refinements which must necessarily be made to develop the cost, the car mile basis is absolutely of no value at all. For example, Mr. Hodkinson, Mr. Hodkinson has made no adjustments in his accounts—I could talk for the whole morning, explaining various things, but I want to be as brief as I can. I will enumerate a few to indicate the complications to develop the cost of handling any one commodity.

You take in the operation of a train, we have what is known as train switching, that is, the road locomotive, at a station where no switch engine is maintained, will perform the switching service, that is, the placement of the car. (It will be a service corresponding to a terminal service where a switch engine is maintained.) Now in determining accurately the cost, which should be determined in an effort to prove this case, you should make all of those refinements. Therefore, it will require an adjustment in that particular case of determining the amount and cost of road switching which is included in your line haul expenses, and credit your line haul expenses and debit your terminal expenses. [fol. 2321] None of that has been adjusted. You have the railroads performing different freight services, and included in the freight expense, expense to passenger service. That would be a credit to freight and a debit to passenger, and to make that clear, your Honors, coal consumed by a passenger locomotive is hauled in freight service, necessarily. Now, those expenses are charged to freight, but it is proper to make a distribution of those expenses between the passenger and the freight service, and in a meticulous cost accounting study those adjustments should be made. Likewise there is a debit to passenger and a credit to freight for other services performed in interchange between the two lines. There would be a debit to freight cost of the passenger service performing freight service; for example, your dead-head crews in freight service are handled in the passenger trains. I am just showing that is so, if you want to get to the readjustment—how far you must go before you can develop actual costs.

I had shown you that the cost was $46.20 on a car of coal as compared with $13.20 for the empty car. The car mile basis for haulage expenses is improper. Now, if you will recall, I said you take 3 mills per gross ton mile for haulage expense. I want you to bear in mind there is an important distinction between line haul expenses and terminal expenses. Now the gross ton mile more truly reflects the [fol. 2322] cost than the car mile, because it gives distinction to the difference in the lading of the car, and it is absolutely improper to distribute your total cost per car on a car mile basis, as I will develop as we go along farther. I switched from the car mile. I condemn the car mile absolutely, just as the Commission, in the famous Strawberry case that our friends refer to—I used that in the passenger service and I made some separations, but the Commission condemned it; I accept the views, of course, of that Commission and the Court. I have frequently used in the freight service the gross ton mile basis, and I think most accountants will agree that that is the proper measure, because, your Honor, it reflects the movement and the difference in the load and the net of the various commodities. When you deal with one commodity, if you take into consideration three elements, the tare weight of the car, the load you put into it, and the percentage of empty to loaded car miles, you get a very fair estimate of that particular feature, but I want to stress the difficulty without a test—you must make a test of the particular commodity in order to get any accurate costs.

By Judge Soper:

I would not state as my opinion that the use of the gross ton mile basis would give a fair result if I were trying to [fol. 2323] ascertain the cost of carrying citrus fruit on a system average. I will be very glad to explain my reason. It is a question of such importance and so complicated that you cannot ascertain the cost on a gross ton mile basis or a car mile basis of system averages over the various branches of that system. On system averages it would not be of any value. You would have to make specific tests and studies, just as the Supreme Court has indicated in the Northern Pacific case that these tests could be made. They indicated, as I inferred, that you would have to put men on the trains and ride the freight trains to develop the

tonnage on each train handling the commodity. That is impractical but nothing, I believe, is impossible.

Q. One of the witnesses testified today it was impracticable, at least; I don't know what he meant but he said it was not possible to get specific cost. But to come back, I want to be clear as to your position in the matter as to gross ton mile costs. The question I asked you was whether you could say that such a system average, using the gross ton mile basis, would show a figure higher on citrus, or lower, and you said you could not answer that question categorically, yes or no, without explanation.

A. No.

Q. What I want to be clear on is this: From your standpoint, as an expert, do you say that you are able to deter- [fol. 2324] mine whether the gross ton mile basis would give too low, or too high, a figure? I am not asking you whether you think it would be too low or too high at this moment, but I am asking you whether you can say you are able or unable to express any opinion on that question?

A. Your Honor, my answer would have to be this way: You could not determine that for the citrus fruit without testing it, because, taking the gross ton mile for the system, there is no distinction made there between line haul and terminal expense.

Q. I fancy it would not be unfair to you to ask you to answer categorically whether you can express an opinion. Now you tell me you cannot—whether a per car mile basis would give too high, or too low, a figure for citrus fruit?

A. I can't say whether it would be too high or too low, but I think it would be more representative, Your Honor, than the car mile costs.

Judge Soper: All right.

Mr. Gwathmey: May I ask Your Honor, merely in order to clearly understand your question, whether your question relates to the citrus fruit covered by this case and the particular circumstances under which it moves and the lines over which it moves? I don't know whether you asked him a general question, or whether you limited it to this particular traffic.

[fol. 2325] Judge Soper: I am perfectly willing for the witness to take it either way he wants to take it. The only thing I am interested in is this case. If he wants to express

it generally outside of this case. I gather from what he says he doesn't know and is unwilling—I don't mean to say he is unwilling, but I do not understand his testimony to be that he has any opinion as to whether the gross ton mile costs on the system average would be too high or too low as applied to citrus fruit.

Witness: Now, pardon me, Your Honor, I get your point there. I say it would be too low. I will make a definite statement on that.

Judge Soper: Well, I am obliged to you, because I believe you more clearly understand what I say.

Witness: I perhaps misunderstood your question. I did not mean to evade, in any way, your question. I make the statement definitely that it is too low.

By Judge Chesnut:

The car mile basis is too low to the southern lines and too high to the eastern lines. I will explain why the apparent inconsistency exists. There is a difference in the ton mile basis in that a gross ton mile basis does not truly reflect, either for the southern lines or for the eastern lines, on the system average, the cost of handling the traffic. I think it would not make as much difference to the eastern [fol. 2326] lines, as I will try to develop a little later on, on account of the tremendous density of the traffic of those [fol. 2327] lines as compared to the light density of traffic of the southern lines.

By Judge Soper:

In giving my reasons why the gross ton mile basis would give too low a figure as applied to citrus fruit on southern lines, I will introduce an exhibit that will perhaps illustrate it. It will be numbered Lamb Exhibit No. 1. If you will notice, there are fifty-five sections of our lines in Florida embracing 1,426 miles and the total mileage in Florida is 2,067. The percentage of this total mileage is 68.99, in round figures sixty-nine percent of the mileage in the State of Florida as reflected by these lines which I have designated as lines from which citrus fruit and other perishables move from originating points in Florida to Jacksonville, Florida, the last concentrating point in Florida. If you will glance down the last column reading "Net ton miles for mile of road", look at lines 46 and 47, there is 3,335 net

ton miles per mile of road, which is almost inconceivable to the operation of a railroad when you just compare that with 4,996,000 ton miles per mile of road for the Pennsylvania Railroad, and you can see the contrast.

This covers the year 1931. The average for these 1,426 miles was 373,958 net ton miles per mile of road compared with the system average of 601,825 for the Atlantic Coast [fol. 2328] Line system as a whole. These lines show a density of only 62 per cent of the balance of the line. Now, adding to that, I had a test made taking the last week in November, 1930, and the last week in each of January, March, and May, 1931, for those branch line trains, to determine the percentage of utilized use of the potential power over those lines. I selected those four weeks for this purpose: The first week was the beginning of the season and the next two come up to the peak and the last, in May, was the falling off. I tried to cover it to be representative. It is quite a task to make a study of this kind. I could not take consecutive periods for a long period and I selected these to test it out. On these lines the percentage of utilized power was 23.3 per cent of the rating of those locomotives, what those locomotives would pull over that particular section of the system. Now, your Honor, those two items will give you the point I had in mind when I was trying to clarify it.

This exhibit covers all tonnage. It is significant because a large proportion of perishables is in there. That is one reason the tonnage is so light and the other is that these are branch lines where we are gathering it. One of the elements why the gross ton miles on a system average basis does not show up properly as to Florida citrus fruit is because of the light loading which that necessarily involves. I think it is an important element as compared with com- [fol. 2329] modities because the citrus fruit loads about sixteen tons to the car or a fraction above sixteen tons, and other commodities load higher. The second element is branch lines and there is not a volume of traffic moving over them. I might at this point utilize an illustration that you will find in my memorandum. You can very well visualize this operation by taking a fallen tree with the trunk towards the north and the branches towards the south. The citrus fruit traffic originates on these branch lines and it gradually gets closer and closer to the trunk of the tree. At each of

these concentration points you must near in mind there is a terminal service, that is these trains do not run through from these points all the way to Jacksonville or to Richmond.

And each of the points as you come in towards the next branch of the tree you have a break-up or concentration of that traffic. And as you come further north it becomes a little greater in volume as you advance northward until you reach the final concentration points on our line where it is moved and reaches the main branch of the trunk of the tree, as it were. Now, in connection with the southern lines, you must visualize breaks or gaps in that trunk. It is not a haul from Jacksonville to Richmond in one run of 800 miles but it is a series of short hauls because we have to break these trains up as the operating testimony will show in this [fol. 2330] record, at various points as we move northward. At Waycross is our principal concentration point and diversion point. Now, the trains come into Waycross, they are broken up and scattered to the four winds, you might say, and then as they go further north, at Savannah, Charleston, Florence, South Rocky Mount, and Petersburg there are other break-ups of that train. So, I want your Honors to visualize the fact that they do not move that right straight through from the concentration points in Florida to Richmond, Virginia. Now, at Richmond, Virginia, the total citrus fruit traffic of the Atlantic Coast Line and the Seaboard Air Line converges. We both come into Acca Yard and turn it over to the R., F. & P. Railroad. It is moved up to Potomac Yard in Washington. At Potomac Yard the Southern Railway also brings in its citrus fruit. And there at Potomac Yard you reach the grandest concentration imaginable, and the main trunk of this fallen tree, and you are getting into a concentrated movement, substantially in trainload lots, frequently in trainload lots, and in tonnage exceeding many of the trains out of Potomac Yard carrying other freight. I have tried to visualize that for you to give you some idea of our difficulties in the South. I have not enumerated all of them but those are some of the reasons, your Honors, for my previous statement.

[fol. 2331] It is my understanding that the Commission recognized that the difficulties of operation in the South were very great. I noticed Mr. Hall made reference this morning to the fact that the concentrations were no longer

necessary up to Jacksonville. I believe in the old days they used to load them into a car in sort of a bulk and get them to Jacksonville to some extent, and there they were concentrated. Now, these cars are gathered up, one or two cars at a time, into each of these various concentration points, and that is going on today as it was early in the history of this industry.

Not having made an absolute test it would be rather difficult for me to say whether the arbitraries are a fair measure of the additional expense we are put to as illustrated in my Exhibit No. 1. If I express an opinion it would be a pure assumption and I would rather not express it.

By Judge Chesnut:

It is my understanding that the Commission gave the arbitraries to the southern carriers for the purpose of covering our gathering service. Recognizing the disability of the Florida lines, they allowed the arbitraries.

By Mr. Gwathmey:

The Commission found that the Florida citrus fruit origi-
[fol. 2332] nates in Florida at something like 193 different shipping points on the Atlantic Coast. These points are scattered all through this general producing area which covers about 200 miles north and south in the peninsula. In the East the destinations are a relatively small number of markets. There are some scattered out few cars to various places but the bulk of it goes to New York, Baltimore, Philadelphia, Pittsburgh and the larger cities.

Taking the third fundamental error on a car mile basis and going back to Mr. Hodkinson's exhibit, it assumes the same cost per car mile for handling all commodities by use of the system average. It makes no distinction for commodities handled long distances or short distances on main line or branch line, heavily or lightly loaded, whether it be carload, less than carload, interstate and intrastate. This is particularly erroneous when only a small part of the system's line is involved in the movement of this traffic. Take the B. & O. to Baltimore as shown by Mr. Hodkinson's exhibit, is 55 miles, to Pittsburgh 306 miles. The system average mileage of the B. & O. in 1929 was 5,667.43 miles. That will be shown on my Exhibit No. 88 in the original case. Therefore on a maximum haul the B. & O. utilized

.05 per cent of the total system mileage, on the haul to Baltimore less than one percent. Mr. Hodkinson's Exhibit No. 3 shows the average haul from Potomac Yard to New [fol. 2333] New York as 236 miles, to Altoona 248, to Buffalo 440 miles. The system average in 1929 for the Pennsylvania was 10,511.81. Therefore the maximum haul to Buffalo utilized only four percent of the system mileage of the Pennsylvania and to New York two percent which would seem to indicate that the system averages are unreliable. In other words, the actual movement of the citrus fruit which is covered by these studies of Mr. Hodkinson utilizes an almost infinitesimal portion of the system mileage of either the Pennsylvania or the B. & O., and therefore his figures fail to reflect all of the differences that I have mentioned as applicable over the entire system.

The fourth fundamental error: It is impossible to figure costs accurately on any one commodity by mere use of system average figures without further elaboration than that attempted by Mr. Hodkinson and with diversified traffic of the B. & O. and the Pennsylvania the use of system figures are of still less value.

If I were going to undertake to make a cost study and endeavor to ascertain with some degree of accuracy what the cost of handling an individual commodity is, in the first place, I would have to take my operating expenses—freight. The only thing I would have for freight would be the distribution that is now required by the Interstate [fol. 2334] Commerce Commission. The Commission requires the separation of the expenses by the various operating expense accounts in what we term our operating primary accounts and certain of those accounts are subdivided between what are known as yard and other—yard meaning terminal and other—line haul expenses. It would be necessary to make a distribution of these expenses as I outlined this morning briefly between the terminal expenses, the line hauls, the interchange, the platform expenses and then subdivide your platform between carload and L. C. L. That is your first step. Then it would be necessary to ride these particular trains or investigate the particular trains handling citrus traffic and determine the consist of those trains as to tons, ton miles and tare ton miles, etc. You would then have to go through the other various steps of making

the numerous adjustments which should be made if you wanted to develop accurately the cost. Then you would have to determine from your line haul expenses on a proper unit and determine at each of these branch lines the cost over that line of getting it up to the concentration point. You would have to consider the terminal expenses at each of these points where the train was broken up, that is where your cars are diverted at your junction points as you come up. There is a certain classification or reclassification of those cars. That will necessitate a study at each of those points because the switching costs are not the same at all [fol. 2335] points and you would have to develop the cost at each of those points. Then having gotten your final adjusted figures, you will apply it to your tonnage that you handled and add in your terminal costs at each of those places per car.

When I was on the L. & N. I put in several tests. In one of the coal cases my recollection is I checked about 996 trains. I developed the expense of each of those trains. In the Florida Log case I took the consist of the trains for one month to develop a cost on the Log trains and I have done that in numerous places, in Alabama, Florida and Georgia, but those are special studies any time you have to undertake to defend a particular rate and you can't make a study that is applicable to all commodities. You have got to study the peculiar operations of the individual commodity under consideration at the time. Of course, you could gather data at the same time for all commodities but I mean you have to apply it to the particular class of service. There are certain expenses you would have to eliminate that are not attributable to the citrus fruit traffic. Just as Mr. Bonn testified yesterday you have some very expensive docks and wharves here in Baltimore. They are not used by citrus traffic and if you are determining the cost of citrus traffic those expenses would have to be eliminated, and Mr. Hodkinson stated in defense of that [fol. 2336] the reason he didn't eliminate them was that he didn't have the car miles. The answer to that is it is a monumental error in making no distribution between haulage and non-haulage because his terminal expenses would be properly divisable on a car basis and his haulage expense statistics could be used just the same.

By Mr. Gwathmey:

My statement was that in my opinion it is absolutely impossible to determine with any degree of accuracy the costs of this character by the use of system averages.

By Judge Soper:

I was not in the Florida case, Decision 144, I. C. C. That was before I came with the Coast Line. That was a case in which the Commission undertook to alter the rates for citrus fruit. I do not know whether any such studies as I have suggested were made when all the lines were before the Commission with reference to the amount of rates that were to be allowed in the future. I was not in the case and am not advised.

Mr. Gwathmey: There were not because we were there trying the reasonableness of rates. We did not introduce any cost figures of the character Mr. Lamb referred to in the case before the Commission fixing the divisions and [fol. 2337] the Commission in its report said that such determination of costs was not essential to its decision.

Witness (By Mr. Gwathmey): Going back to my fourth criticism of Mr. Hodkinson's exhibit, I believe I stated that it is impossible to figure costs accurately on any one commodity by mere use of the system average figures without further elaboration than that attempted in this case and with the diversified traffic of the B. & O. and the Pennsylvania Railroad, the use of system average figures is still less valuable and this is particularly true of citrus fruit. In the original case I filed as my Exhibit No. 85 a statement showing commodity statistics for each of the roads involved in the citrus rate case. For the Pennsylvania Railroad citrus fruit represented twenty-nine one-hundredths of one percent of their total tonnage and forty-eight one-hundredths of one percent of their total revenue. In the B. & O. it represented twenty-one hundredths of one percent and forty-one one-hundredths of one percent of their revenue. I think any attempt to ascertain or approximate the cost of handling twenty-one one-hundredths of one percent of your total system tonnage, which infinitesimal part moves in carload lots in—I was going to say substantially trainload lots—in many cases trainload lots, to only a few important desti-

[fol. 2338] nations over the higher density lines of the railroad, the system average costs are of little, if any, value.

By Judge Chesnut:

The system average on the car mile basis, Your Honor, for the eastern lines undoubtedly is higher than the cost—I say undoubtedly, that is my view of it—and on the same reasoning I say that the cost on a car mile basis is too low for the southern lines. I tried to explain that a minute ago.

By Judge Soper:

Q. I would like you to develop that a little bit. I don't mean to say to go into detail but give your reasons why you feel justified in expressing any opinion on the subject. If it be true, as you suggest, that none of these calculations are worth anything unless you make the study such as you described a little while back in your testimony, having not made any such study in this case, why do you feel justified in saying that as to the southern lines the system average car mile cost is too low and as to the northern lines too high?

A. That is the next point I expect to cover. In my opinion the use of the car mile basis which is unusual in the ascertainment of costs of handling any one commodity in freight service, had a purpose and I think the purpose can be explained by an anlysis of the commodities handled. In the original hearing, as I just stated, I filed my exhibit No. 85 which showed for the year 1929 the commodity statistics of [fol. 2339] the interested roads. That statement shows that products of mines for the Pennsylvania Railroad represented 60.71 percent of their total tonnage, that is loaded 55.22 tons per car. For the B. & O. it represented 61.02 [fol. 2340] percent of the total tonnage and the average load per car was 53.16. On the Atlantic Coast Line products of mines represented 31.66 percent and on the Seaboard 36.21 percent of their total tonnage. Citrus fruit represented on the Coast Line 3.44 percent of its total tonnage and 14.28 percent of its total revenue, and on the Seaboard it represented 2.13 percent of its tonnage and 9.38 percent of its revenue. A system average of the Pennsylvania was 37.99

tons per car. The average load of products of mines was 55.22 tons per car or 21.20 tons per car in excess of the system average and it is 36.43 tons above the average loading of citrus fruit traffic. The average load on the B. & O. was 53.16 tons for products of mines and it represented 61.02 of its total traffic, while the load of citrus was 16.88 and the average load for the system was 37.65 and that is 20.77 tons above citrus. It seems to me that the answer to the purpose is therefore clear that under a car mile basis—and I went back earlier in my testimony and explained to you why there was a difference in the cost of handling a loaded and empty car—the same principle applied to this vast volume of products of mines. When you reduce it to a car mile basis, you are not producing the proper expense for handling this heavy commodity. It was testified yesterday by witness Menaugh that it did cost more to move a car con-
[fol. 2341] taining fifty tons than a car containing twenty tons and that is the illustration that I wanted to bring out. It seems from these illustrations of the consist of the commodities that it is axiomatic that the cost of handling a car of coal or products of mines 200 miles is greater than for citrus fruit traffic 200 miles on the gross ton mile basis as reflecting the movement. Then you have to consider, of course, the terminal expense in there. The car mile basis spreads the cost of handling citrus traffic and the expense of the difference between 55 tons of products of mines and 16.79 tons of citrus or 38.43 tons, which you will note is approximately the weight of the car and load of citrus fruit, is spread over all of the traffic. In other words, you can see, your Honor, that you have in the case of citrus fruit 38 tons less tonnage to the car than you had in products of mines. As it costs more to move ten tons than one ton, it seems axiomatic that the cost of your 55 tons as against your 16 is greater and the difference there alone is almost equal to the entire weight of the car and contents of citrus fruit traffic, that they spread—spread it all over the system and over every mile that the car is hauled. That same analysis and the same exhibit indicates why the reverse is true in connection with the southern lines. We have a lighter loading there and you just reverse the situation when you take a
[fol. 2342] car mile basis you don't get the effect of the greater cost per ton, per net ton particularly. We handle on the Coast Line, as I will bring out in another exhibit,

taking it on the straight tare ton miles compared with the net ton miles, my recollection is, 1.87 tons to each ton of net, almost two tons of tare to a ton of net freight. With a car of coal you have 55 tons of net to 22 tons of tare which is approximately 2½ times the net as compared with the tare weight. The figures presented by the eastern roads are at best merely general estimates.

By Mr. Gwathmey:

Looking at the matter from the standpoint of the extent of the mileage used, that is the proportion of the mileage of the respective systems, there is a vast difference between the Atlantic Coast Line, on the one hand, and the Pennsylvania or the B. & O., on the other. A very small percentage of the Pennsylvania is used and a relatively larger percentage for the Coast Line and Seaboard in handling citrus fruit. They are small in both cases, but relatively much greater on the southern lines than on the eastern lines. The mileage of the Atlantic Coast Line Railway system was 5,151.60 miles and the distance is approximately 800 miles which would be approximately 16 percent, from the extreme [fol. 2343] southern Florida point to Richmond. Citrus fruit on the Atlantic Coast Line represents 3.44 of the tonnage and as to the Pennsylvania .29 of one percent. As far as the Atlantic Coast Line is concerned, while it is only 3.44 percent of our total tonnage, it represents 14.28 percent of total revenue. It is highly important to us. It represents .48 percent of the Pennsylvania's total revenue. I didn't intend to make the statement that it isn't safe to apply any system average unit to the Pennsylvania while it is safe to apply it to the Atlantic Coast Line. My sole purpose in referring to the tonnage of citrus fruit was to compare it with the tonnage of products of mines which was a heavy loaded commodity. We don't have as large proportion of our traffic represented by products of mines.

By Mr. Gwathmey:

It is my position that the use of the system average car mile costs overstates the cost of the eastern roads and understates the cost of the southern roads.

The percentage of the Pennsylvania system mileage which is utilized in the movement of citrus fruit to the east is nothing like as large as the percentage of the Coast Line's sys-

tem mileage which is utilized in the movement of citrus fruit from Florida to Richmond.

The Florida citrus fruit originates at a vast number of [fol. 2344] different points in Florida located on numerous branch lines, whereas it moves to destinations in eastern trunk line territory which are very limited in number and principally to a few large consuming points.

The composition of traffic on the Pennsylvania Railroad system is materially different from the composition of traffic on the Atlantic Coast Line as illustrated by the percentage of the Pennsylvania tonnage which constitutes products of mines as compared with the percentage of its tonnage which citrus fruit represents. On products of mines you have heavy loading whereas on citrus you have light loading. So that when we use the system average car mile costs, those items destroy the value of the comparison.

The circumstances surrounding the physical handling of the citrus fruit from Florida over the lines of the Atlantic Coast Line Railroad over which the citrus fruit actually moves are entirely different from the circumstances under which the Pennsylvania, for instance, handles the traffic between Potomac Yard and New York or these other large eastern destinations, from the standpoint of train operations, train loadings, and things of that kind. The figures presented by the eastern roads are at best merely general estimates based on system averages and therefore contain the numerous imperfections which are enumerated by the [fol. 2345] Supreme Court in Northern Pacific v. Department of Public Works, State of Washington, 268 U. S. 39. As all of Mr. Hodkinson's subsequent exhibits from 2 to 10 were based on Exhibit No. 1 it seems to necessarily follow that if No. 1 is proven wrong the rest are of no value. I would like to make some special reference to Mr. Hodkinson's Exhibit No. 7.

With respect to the average haul of the system, the Baltimore & Ohio average haul on citrus traffic was 114 miles. If your Honors will turn to page 5 of that little memorandum you can see those figures. The system haul was 190 miles. The percentage of empty to loaded car miles for citrus on the Baltimore & Ohio was 85 per cent. The system general average is 63 per cent. If you weight the mileages to make them comparable, if you take 185 per cent of the 114 miles for citrus traffic on the Baltimore & Ohio you

have a haul of 211 miles. If you take 163 per cent of the system average of 190 you have 310 miles for the system. The citrus fruit weighted average haul for the Baltimore & Ohio as compared to the system is only 68 per cent.

You will find on page 17 of the eastern roads' brief of September 12th, the claim is made: "The weighted average hauls of the Pennsylvania and the Baltimore & Ohio on Florida citrus fruit are substantially identical with the average hauls on all traffic." Now, the reason for that, it [fol. 2346] shows the effect of that spread of the terminal under the car mile basis.

By Judge Soper:

Their point was that there should be no pyramiding of the terminal cost because taking the Baltimore & Ohio particularly, the average haul for citrus fruit is less than the general average haul for all commodities. That is true with respect to the Baltimore & Ohio but the Pennsylvania is the reverse. The haul on citrus fruit is 128 per cent of the system average. I have not worked it out for the southern lines.

By Mr. Gwathmey:

On the part of how much terminal expense of the Pennsylvania Railroad has been included in this computation of Mr. Hodkinson and to that extent pyramids his car mile cost, I have before me a copy of the Pennsylvania Railroad's report to the Interstate Commerce Commission, pages 304 to 309, inclusive. In that report are set forth the operating expenses. In the maintenance of way and structure block are certain expenses set out as specifically chargeable to yard, and amounts specifically charged to others, which are line haul expenses. I have tabulated those expenses for the Pennsylvania Railroad and find the total of the accounts which can be directly allocated to yard or [fol. 2347] terminal expense and to line haul represent $4,823,827 chargeable to yard and $34,601,095 chargeable to other. In the transportation block of expenses I find $50,295,777 as chargeable directly to yard and $62,211,566 as chargeable to line. The sum of those accounts which can be directly allocated showing $55,119,604 as chargeable to yard and $96,812,661 as chargeable to line. The aggregate of those allocatable amounts is $151,932,265 as shown on

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page four of this little memorandum. Now, the yard expenses represent 36.28 per cent of the total accounts that can be allocated. The total freight operating expense as shown in that report is $352,830,736 and applying 36.28 per cent to that figure on the theory that the unallocated acounts will follow these allocated, we have as chargeable to yard or terminals $128,006,991.

Under the Hodkinson formula and his failure to apportion these expenses between line haul and terminals, he has distributed on the car mileage basis over the entire haul of the traffic $128,000,000 or more which is not properly distributable on the car mileage basis, being terminal expenses.

By Judge Soper:

If you applied the same form of calculation to the southern lines there would be an adjustment. It applies to both southern and northern lines and applies in greater force [fol. 2348] to the southern lines than to the northern lines. On the theory of the car mile basis there would be a greater pyramiding of the terminal expense with regard to citrus fruit for the southern lines than it would for the northern lines.

By Mr. Gwathmey:

To the extent that the inclusion of terminal expenses tends to pyramid line haul costs, that is true to a larger degree in the case of long hauls than it is in the case of short hauls, but I do not intend to be understood as saying that even recognizing that principle, a study of those costs from the standpoint of the southern lines would represent any such pyramiding of line haul costs by reason of terminal costs as it would in the case of eastern lines. This study of Mr. Hodkinson represents a pyramiding of the line haul costs to the eastern roads by the sum of as much as $128,000,000 representing terminal expenditures. We have not any such terminal expenditures as that in the south. Those terminal expenditures that I include in the $128,000,000 embrace all of these enormous terminals which the Pennsylvania Railroad has on its system in the east, not only its produce terminals but its other large terminals at New York City and similar places. They are the terminal expenditures which the Commission refers to in its report in this case. They are also the terminal expendi-

[fol. 2349] tures which the Interstate Commerce Commission has investigated in recent periods, such cases as duplication of produce terminals and others along the same line.

By Judge Soper:

I have not made any calculation in this particular instance of terminal costs for the southern lines parallel to that on page 5 for the northern lines. I know from my knowledge of dividing expenses of the Atlantic Coast Line that they are relatively much less than in the case of the Pennsylvania.

By Mr. Gwathmey:

I think the rate of return which the eastern carriers, the petitioners here, have produced by this study and set up as the return which the southern carriers are receiving under their divisions is greatly overestimated because from my knowledge of the operations of the Atlantic Coast Line and the handling of this traffic in connection with the gathering service and the other services between the Florida points and Richmond I feel confident to express the opinion that the greater return as shown there is very much overstated for the southern lines.

[fol. 2350] By Judge Chesnut:

I can express the opinion from certain studies that have been made in the South and which will be put in by another witness in this case, that the gathering service is much more expensive than the terminal expense, that is on certain of the branch lines. There is some figure in this case that shows that the terminal cost item of expense to the Pennsylvania Railroad is approximately $29 a car. I had that in mind. Our gathering charge per car is greater than $29. We will be able to show that from certain studies.

By Mr. Gwathmey:

I started to explain Hodkinson's Exhibit No. 7 which has reference to return on investment. If you will turn to page 13 of that little memorandum of mine you will find the reference there. With special reference to Hodkinson's Exhibit No. 7 showing the 5.75 per cent return on

investment I should like to have the court follow me in connection with Hodkinson's Exhibit No. 1. The figure is based on a purely arbitrary apportionment, first, as to passenger and freight and then as assigned to citrus fruit traffic on the car mile basis.

By Judge Soper:

The apportionment between passenger and freight is [fol. 2351] shown on Hodkinson Exhibit 1 showing total operating expenses, Pennsylvania, $500,425,000 on line 4 and then he shows the freight proportion as $353,671,441 and that represents 70.67 per cent. Then he makes certain deductions and down in line 5-H he shows 60.02 per cent as being the net freight after taking out the freight train car repairs and depreciation. Those percentages are accepted as correct as reported to the Commission. That is the initial distribution between pasenger and freight as submitted to the Commission. I accepted that. He makes certain adjustments and reaches a percentage of 60.02 in the opposite line 5-H under the Pennsylvania. Now, under Mr. Hodkinson's theory of eliminating the freight train cars and then applying this 60.02 percent to his total investment to obtain the 5.75 per cent shown on line 3 as $83,000,000 and odd dollars, he assumes that he has taken out of his investment account the value of freight train cars. Now, I have in my hand the annual report of the Pennsylvania Railroad to its stockholders for the year 1929 and at page 32 is set forth the value of the different classes of equipment, and under freight car equipment is shown, "Value as from general ledger December 31, 1929", $286,409,516 as the value of freight car equipment. You want to bear in mind that would represent the amount of equipment that Mr. Hodkinson had on his theory deducted from investment account in determining his rate of return on investment. He has eliminated it by taking sixty per [fol. 2352] cent instead of 70.67 percent. You see, had he taken the total amount of investment and applied the total freight ratio he would have used 70.67 percent. Instead of that he used 60.02 per cent. If his theory was correct he would have eliminated the difference between 70.67 per cent and 60.02 per cent or 10.65 per cent. Therefore, if his calculation be correct he should have eliminated 10.65 percent of the total investment shown on the first line of

his exhibit, $2,405,865,551 or $256,224,681 as representing the value of freight train cars. However, as shown by the 1929 annual report of the Pennsylvania Railroad, the value of freight train cars was $286,409,516. Therefore, on the method adopted by Mr. Hodkinson he has failed to eliminate $30,184,348 of investment in freight train cars in his calculation.

Q. Of course, I may not understand those figures, and probably do not, but it is not my understanding at the present time that in Exhibit No. 1 Mr. Hodkinson was endeavoring to make deductions for investment in freight cars. I think you are entirely wrong about that. I thought the thing he was deducting were the repairs, depreciations and retirement of freight cars?

A. That is what he has deducted and on his method of obtaining the 5.75 per cent or $83,000,000 shown on line 3 he uses that, you will note in line 11 in which he says [fol. 2353] that three divided by eight—in other words, he gets the $83,000,000 and divides it by car miles and gets it down to three cents plus, in the last figure, so that his figure is wrong. That is taken from the Pennsylvania Railroad's annual report to its stockholders.

By Judge Chesnut:

I have not worked out the percentage of the final error that makes in his computation. It would make some difference in the cost per car mile for the rate of return.

By Judge Soper:

He has swollen his freight investment over $30,000,000 out of $1,444,000,000. In other words, his freight car investment is $30,000,000 too big. I am just attacking principally the arbitrary method of apportionment. That is the principal point of attack.

By Mr. Gwathmey:

The point I am trying to make is that the separation of investment is based on an arbitrary apportionment and I am using that item as an illustration. That same principle applies to the other roads. I only worked it out for the Pennsylvania there to get that effect. I should like

to file at this point as Lamb Exhibit 2 a statement showing "Freight traffic and operating statistics (rail) year ended [fol. 2354] December 31, 1929." The figures shown on this exhibit are taken from the 83rd Annual Report of the Pennsylvania Railroad to its stockholders.

I am trying to show by this exhibit that the system averages are not applicable, and also that the New York zone and eastern region have very favorable operating conditions as shown by their own annual report. Take item 6 under the general head "Averages per mile of road," it shows that the total number of tons carried one mile on the New York zone is 5,798,106 and in the eastern region 5,182,024.

By Mr. Eshelman:

I am testifying from statistics furnished by the Pennsylvania Railroad to its stockholders.

You will note the New York zone is 116.52 per cent of the system. The two combined, the New York zone and the eastern region are 105 per cent. Now, take line 9 "Averages per train mile." It shows that the gross tons per train mile on the New York zone are 2,232, the eastern region 2,396, for the two combined 2,372, and for the system 2,362 so that the tonnage on the New York zone and the eastern region combined are slightly in excess of the system, approximately the same. Now, take line 13 the averages per train mile. It shows that on the New York zone there was handled 52.3 cars, in the eastern region 59.1, [fol. 2355] combined New York zone and eastern region 58.1, and the system 57. The average mile each ton was carried as shown on line 18 and it will be noted that the New York zone average is 85.2. Line 20 shows that train speed miles per hour is 13.3 on the New York zone, 11.8 for the eastern region, and 12 for the two combined, which is just a little in excess of the 11.9 of the system shown in the last column. Now, the gross ton miles per train hour is shown on line 21 as 29,594 for the New York zone, 28,288 for the eastern region, 28,461 for the two combined, and 28,110 for the system. One of the important items is found in line 25 pounds of coal per thousand gross ton miles, 102 on the New York zone, 112 in the eastern region, 110 for the two combined as compared with 125 for the system. That shows the efficiency or less cost by expense

in the two zones per thousand gross ton miles in the consumption of fuel.

By Mr. Gwathmey:

Those figures which I have just been giving do not tend to dispute in any way the claim of the eastern carriers that their unit expenses of operation on the New York zone are in excess of those of the Pennsylvania system as a whole, but just the reverse. They are at least as favorable and in some cases more favorable than the system as a whole.

[fol. 2356] By Judge Soper:

In many cases they correspond pretty close to the averages. Take the number of tons carried one mile in item 6, practically 117 per cent in the New York zone and the system.

By Judge Chesnut:

These are only operations statistics, in contradiction of the exhibits put in yesterday which showed the general average of all expenses in the east as compared with the whole system. This is particularly on one phase of the expense.

By Mr. Gwathmey:

At this point I will file an exhibit showing certain comparisons between the Chesapeake & Ohio Railway and the Pennsylvania Railroad. The other day Mr. Hall in examining Mr. Hodkinson tried to bring out the point that the cost per car mile on the Chesapeake & Ohio was lower than on other roads and, as I understood, his deduction was because eighty per cent or more of the traffic was coal, it didn't increase the cost. Judge Chesnut raised the question of the possibility of certain conditions influencing that. I have just prepared this exhibit to show the facts. This information is drawn from Section A of the Statistics of the Railways of the United States, published by the Inter-
[fol. 2357] state Commerce Commission. You will note the Hocking Valley shows ton miles per mile of road, all freight, of 8,713,819; the C. & O., 7,293,585; the Pennsylvania, 5,485,591. The lines that are numbered items 89-91, average

per train mile, shows the total car miles, freight train, which shows the number of cars in the train mile, that is the cars in the train, as 67.81 for the Hocking Valley, 62.61 for the C. & O. and 56.70 for the Pennsylvania. The ton miles per train mile are also shown. The exhibit will speak for itself with respect to that and I will not stop to show that. The average loading shown in Item 111, averages per loaded freight car mile, that is the load of the car, was 49.07 on the Hocking Valley, 42.86 on the C. & O. and 31.00 on the Pennsylvania. I will call your attention to the last item, 123, operating ratio. The Hocking Valley is 60.33 per cent, the C. & O. Railway 65.89, and the Pennsylvania 72.24. As the density decreased the expense increased as reflected by the ratio, and the probable answer to the lower cost on the C. & O. as compared with the other roads is that they handle practically 62 cars per train as compared with, say 57 on the Pennsylvania.

The deduction I desire to draw from the exhibit is the assumption stated by Mr. Hodkinson that the fact that the Pennsylvania had the largest percentage of coal traffic in the country was not the contributing cause to the low costs on the C. & O. but the fact of their operating conditions [fol. 2358] which permit of a greater number of cars per train.

Mr. Clark in his Exhibit C-1, purporting to show for the year 1929 the freight operating expenses per freight car mile for the Pennsylvania Railroad, combined eastern region and New York zone, Pennsylvania Railroad proportion, has used the same formula used by Mr. Hodkinson in obtaining the operating expenses per total freight car mile and all of the criticisms which I have made of Hodkinson Exhibit No. 1 apply with equal force to this exhibit. As Mr. Bonn has adopted the same formula as used by Mr. Hodkinson, all the criticisms applicable to Exhibit 1 apply with equal force to Mr. Bonn.

Cross-examination.

By Mr. Beach:

In the course of my direct examination I contrasted the portions of the Pennsylvania's line used in the handling of citrus fruit as compared with the entire system mileage. I did not confine my consideration only to the portion of the

Pennsylvania's line between Potomac Yard and New York in arriving at that percentage. I took the system average mileage as compared with the average length of haul shown by Mr. Hodkinson's exhibit on the various destinations I used for the purpose of illustration. I took the total of the system, the total system mileage as compared with the mile-
[fol. 2359] age to the extreme points used in the illustration, Buffalo, and other points. I did not add every line individually over which the Pennsylvania Railroad handled the traffic. I took the haul and applied it to the system average, that is the weighted haul that Mr. Hodkinson gave.

In my opinion the use of either the car mile or gross ton mile unit would understate the cost of handling citrus fruit for the southern lines. May I qualify that to just using the flat gross ton mile or the flat car mile. I gave as some of the reasons, first, that we are dealing with a light loading commodity; second, the many special services performed in connection with the handling of citrus fruit not performed in the general run of traffic; third, the originating lines have very important terminal services. I adhered to my conclusion, in answer to a question by Judge Soper, that in spite of the fact that applying the car mile unit there was considerable pyramiding of the terminals.

Q. Now, for the purposes of this next question, I want you to make the following assumptions with me. I am not asking you to admit anything. I want you to assume that we too are handling a light loaded commodity, that we too perform many special services which tend to make this traffic cost more to handle than the average run of traffic, that we perform destination terminal services and that if there is any pyramiding there at least is no more pyramiding [fol. 2360] north than south. Now, making those assumptions, would you say that the cost of handling citrus fruit north would be understated just as it is south, just making those assumptions?

A. No, because of the difference——

Q. Just make those assumptions and then I will have no objection to your telling all the reasons you want?

A. Everything being equal, the costs would be equal but the facts are that the composition of your tonnage is so entirely different from ours that it wouldn't apply.

Q. I told you that I wasn't asking you to admit anything. I am asking you to make those assumptions with me. Can't

you assume those four things with me and then answer the question?

A. If I assume that you have the light loading car, the special service and you put on the originating——

Q. No, the destination terminal service and that at least there is no more pyramiding when you apply the car mile unit north as south, making those assumptions, what is your answer as to the understatement or overstatement in applying system unit averages to this traffic?

A. Let me be sure I understand your point, Mr. Beach. Applying that to any section of road or as a general application.

Q. I am asking as a general principle?

A. Your final question is would it cost more.

[fol. 2361] Q. Would it understate the cost of citrus fruit to northern lines or over-state?

A. On a car mile basis I can't answer it.

I mentioned four main criticisms or errors in the Hodkinson theory. The major criticisms were the same criticisms as were leveled by the Commission at the use of the total car mile basis which we used in the so-called Strawberry case. The Commission condemned the use of the car mile basis in the Strawberry case for the same reasons that I set out and was sustained by the Court. I think the criticisms were well founded, particularly with respect to freight traffic. Among other criticisms was the matter that it assumed it cost just as much to haul an empty as a loaded car in the passenger service. That was a passenger case and not a freight case.

Q. I am going to ask you when you went before the Federal Three-Judge Court in New York with an affidavit, whether this was the substance of your affidavit on that point, that the second criticism was with respect to the cost of handling empty cars, that it assumed to cost as much to transport an empty car as a loaded one. Relative to this [fol. 2362] criticism the testimony shows, and there was no dispute thereto, that passenger trains are not operated on a tonnage basis, that the length of the train and the speed thereof are the controlling factors. The difference between hauling a passenger car one mile loaded or empty, if there be any difference at all, is the infinitesimal difference in the consumption of fuel by the locomotive. The wages of

the train crew are paid regardless of whether the car is loaded or empty and practically all expenses, other than fuel, are constant. A further point is that in determining the cost per passenger car mile used in his cost study he divided the total haulage passenger expenses by the total passenger car miles both loaded and empty. Therefore if it cost less to handle an empty car one mile the cost of handling a loaded car mile as used in the cost study was diluted to this extent. It follows if any adjustment in the cost should be made as representing the difference between the cost of handling a loaded and empty car one mile in passenger train service, there should first be added to the cost used in the cost study some amount for this excess, if there be any, because as stated above the costs per passenger car mile were diluted by the inclusion of empty car miles so that the cost per loaded car mile is understated. It therefore seems entirely proper to use the average cost as was done in the cost study both for the loaded and empty hauls." [fol. 2363] Did you include a statement to the effect that I have just read in your affidavit before the Three-Judge-Court in New York?

A. I did, and there is no inconsistency in my position there and my position here. That affidavit was made in connection with passenger operations and there is a marked difference in the operation of passenger and freight. In the passenger operations there are no statistics just as was brought out in the reading there, no tonnage rating in passenger trains. On the contrary, in freight the tonnage is the measure of efficiency for the ton mile. The exhibit I just filed, I think, your Honor, will explain the point that I am making, that there is no inconsistency in my position in the passenger case and in the freight case. Here the C. & O. Railroad handled 68 cars to a train, the Pennsylvania handled 56. In both cases it was the tonnage that controlled. There is a different tonnage on the Hocking Valley of 1,746 as compared with 1,010 for the Pennsylvania. In the freight service it does cost, just as Mr. Menaugh admitted yesterday, more to handle a car containing 50 tons than it cost to move a car containing 20 tons. I don't think there is any inconsistency in the two statements.

By Mr. Hall:

At page 472 of the record in the Strawberry case I testified in answer to a question from counsel, "In my

[fol. 2364] opinion, it is impossible to determine with absolute accuracy the cost of handling any commodity in passenger trains, but I believe we can determine within a reasonable degree of accuracy the cost of handling a car in the passenger service one mile." You can determine the average cost of handling a car one mile but that would not be representative of the cost of handling any commodity.

At page 497, at the conclusion of my testimony and after I had introduced my cost study, I was asked this question by my counsel: "I gather, Mr. Lamb, from your testimony that while you do not believe that these costs are necessarily actual, they do represent, in your judgment, the best estimate you can make of costs in handling strawberries in express service from Florida points to various destinations indicated," and my answer was, "That is a correct conclusion."

At that time I recalled the Railway Mail case, 56 I. C. C. 1, but I don't recall the Express Rates of 1922, 83 I. C. C. 606, 89 I. C. C. 297, Milk and Cream between New England points, 126 I. C. C. 38, but I should like to continue just a moment. When the Strawberry case came up and I was assigned to determine the cost I was limited to probably two weeks to prepare the information for all of the roads, including the Pennsylvania and the B. & O. To make a study like the Mail Pay case required months of gathering of statistics as to the car foot miles in each car and the ex- [fol. 2365] pense of each train and that could be done only after a most exhaustive study and I didn't have the time or opportunity to do it in the Strawberry case. We were making a claim of confiscation in that case, and I said that gave an estimated cost.

I agree with the statement of counsel in the reply to petition of complainants for rehearing in the Strawberry case at page 11 that "A cost study which Witness Lamb, an expert, thoroughly qualified, prepared on a basis which he considered most nearly represented the actual cost of transportation and which he believed to be substantially correct, and which stands alone and uncontradicted, and which should not fail of full acceptance by the Commission," with the qualifications that I made as to why I could not put in a car foot mile study.

Q. Mr. Lamb, the operating ratio, in your opinion, on citrus fruit, considering the special service and extra cost

of handling citrus fruit, should be higher than the operating ratio on the average of all traffic generally, should it not?

A. It would depend entirely on the cost of the service.

Q. Assuming the simple proposition that as shown by this record the cost of handling citrus fruit is substantially in excess of that for handling the average of all traffic, as an accountant in which you are experienced, should the operating ratio on citrus fruit not be higher than on the average [fol. 2366] of all traffic?

A. Well, your Honor, that is not a fair question, in my opinion, because you cannot take your operating ratio of any one commodity. Your operations are the mingling of all the various commodities and I don't think that is a fair question on any one commodity.

Q. In other words, you mean by that that you either can't or don't think that an attempt should be made to ascertain the operating ratio on a particular traffic such as citrus fruit?

A. No, I would say to get the cost, after ascertaining the cost you could, of course, develop the operating ratio by considering your revenues and your expenses so developed.

The operating ratio per se would not be worth anything on citrus fruit.

Q. I call your attention, Mr. Lamb, to Mr. Kennedy's revised Exhibit No. 1 and Mr. Kennedy's revised Exhibit No. 2 which you perhaps haven't examined. On page 2 of Exhibit No. 1, you will see that he shows certain operating ratios on citrus fruit, (line 28 for the B. & O. Railway) and that is the ratio of operating expenses to revenues of 57.6 percent. I am informed that the operating ratio of all freight of the B. & O. is 67.08 percent for the same year, to-wit, 1929. I understand you to say that an operating ratio on citrus fruit so arrived at should have no significance; is [fol. 2367] that correct?

A. It depends on the purpose you are using it for. You are making a comparison there. I inferred that your operating ratio was for the purpose of developing some other feature.

Mr. Kennedy's exhibit shows the relative operating ratios of the citrus fruit as developed under his formula and the average ratio of the system.

My Exhibit 71 in the Strawberry case took as one of my illustrative examples the haul from Plant City, Florida, to Jersey City, New Jersey. The total mileage from origin to destination was 1206 miles, of which 868 was Atlantic Coast Line Railroad, 114 R., F. & P., 224 for the Pennsylvania. The system average haul for the Coast Line for the year 1929-30 was approximately between 170 and 180 miles. I was estimating the cost of transporting strawberries from Plant City to Jersey City, and the total distance of 1206 miles was about seven times the average system haul of the Atlantic Coast Line and over three lines of railroad, and that example is typical of the other examples which I showed in my Exhibit 71. That was on the division of haulage expenses and not the total expenses. In my strawberry formula is used system averages of handling car miles in passenger service, and I told the Commission and the Court that the use of those system averages applied to [fol. 2368] the Atlantic Coast Line and the R., F. & P. and the Pennsylvania Railroad was a fair and reasonable way in which to estimate the cost of handling strawberries in express service, that being in passenger service.

I testified this morning that the use of system averages of the B. & O. and Pennsylvania for the purpose of estimating the cost of citrus fruit was of no value. I think I can explain to the Court as to why the use of system averages on freight is not reasonable with respect to citrus fruit and the use of system averages is reasonable with respect to strawberries on the lines of the Pennsylvania and the B. & O. The system averages used in the case of the Strawberry case which involved the roads from Florida to Jersey City were the passenger car miles. In the passenger service the volume of the passenger mileage absorbed to a large extent the different line costs; in other words, the cost per passenger car mile in passenger service is very similar. There is not the wide fluctuation that there is in the freight service. The car mile in freight service, the average for the system, is not proper for the reasons which I have tried to explain this morning and I will not repeat them unless the Court feels it is necessary. I don't recall any specific criticism in the Commission's report in the Strawberry case of the use of the passenger car mile in the passenger [fol. 2369] service as applied to the haulage expenses brought out in the Commission's report. I believe there

was brought out in the Commission's report in the Strawberry case a criticism of the use by me of system average expenses as applied to single line hauls approximating system average haul. I would be subject to correction if the report shows nothing of that kind. That is my recollection. The report would speak for itself. There is nothing in the Commission's report in the Strawberry case in criticism of the use of system freight car miles loaded and empty to estimate the cost of handling citrus fruit. I don't believe that question was before the Commission in that case.

On shipments of citrus to destinations in New England such as Boston there is an expense attached to the interchange over Hell Gate Bridge from Terrell Avenue, Long Island City, to Fort Morris between the P. R. R. and New Haven.

The records of the Coast Line kept are not kept by the operating division. The train accounts are reported by the Superintendent of each division to the Auditor of Disbursements in Wilmington but not all accounts. There were three divisions at one time but there are only two operating divisions now, known as the North and South, but there is no distribution of maintenance-of-way and structure expenses, of the overhead traffic expenses, or any of those accounts. Merely the operating reports are made. [fol. 2370] There is no difference in our divisions now from the divisions as they existed at the time of the decision in the Georgia Public Service Commission case, the Florida Log Case, because you will find in the reports in the Florida Log Case that in order to get the cost on the Third Division which was practically all in Florida, it was necessary for me to analyze the expenses for twelve months because our records didn't show it and you will find the record shows specifically how I had to go to the expense of getting them.

There are at this time two divisions on the Atlantic Coast Line but at that time there — three. There were three divisions in the Georgia Public Service case and there are two divisions now. In that case, reported in 186, I. C. C. 157 I ascertained the expenses of the third division and used them as the third division expenses. As a basis for my cost studyl shown in Appendix E to the Commission's report in that case, I used both system operating expenses

and system averages. In that case there was involved a couple of different situations. We had certain log trains operating in trainload lots between two specified points. I had the trains analyzed for a month and got the expenses of those individual trains in order to work up the cost and used that cost in determining the cost on the sections of [fol. 2371] the system and as emphasizing and showing why we don't have these expenses in all cases I was compelled in another case to utilize the ratio to raise the haulage expenses to the total expenses, based on the out-of-pocket expenses.

I was not consulted with respect to the statements of fact to be made by the Commission in the petition for reconsideration filed with the Commission in the Strawberry case. If you say that pages 34, 35 and 36 of the petition are in precisely the same language as the last three pages of my affidavit in the Southern District Court of New York I will take your word for it. The statement at page 34 of the petition in the Strawberry case, reading "It is therefore apparent that neither Division 5 in the original report nor the Commission in its report on reargument gave proper weight to the cost of handling strawberries and that their principal criticism was absolutely without grounds," was true. I am not trying to defend the Strawberry case but that statement was true because I stated in there that I had eliminated 11.81 per cent for terminal expenses on the Baltimore & Ohio passenger accounts more than I should have under a formula prepared by Dr. Lorenz of the Commission and that statement of mine was absolutely consistent with the facts in the case. In other words, I said to the Commission and to the Court that not only was their criticism not justified but I filed with them [fol. 2372] Exhibit A attached to the petition for reconsideration and attached to my affidavit in court which went into detail to show that had I used the formula which the Commission had used and Dr. Lorenz had used the result would have been even more favorable to my contention than as presented by me, and now I want that clearly understood, if I may take just a minute to clear this up because I don't want any confusion. In that case I took the total passenger expenses and by a process of elimination cut out what I considered terminal expenses. The Commission took the position that I had not done so. In this affidavit I applied the frequently used formula by the Com-

mission to determine the terminal expenses and showed that by that process the accounts which I had eliminated under the heading "Eliminated" instead of designating them as "Terminal" exceeded the total amount of terminal expenses. That was the purpose of that exhibit.

Turning to the answer of the Atlantic Coast Line and other intervening defendants in this case where the reply of my line and others to the Commission in this case is set out as a part of the answer, on page 26 of that petition it is stated by counsel, "That more than fifty per cent of the citrus movement in the 1928-29 season originated on branch lines of railroad, widely scattered as to points of origin," and I so testified this morning. I filed my first exhibit covering it.

[fol. 2373] Q. Your counsel also says on the same page of that answer, page 26, "It is recognized that the average unit costs of main line operations are very materially lower than system unit costs on roads having both main and branch lines." Do you agree that that statement of counsel applies to the main lines of the Atlantic Coast Line and Seaboard Air Line from Jacksonville to Richmond?

A. From Jacksonville to Richmond? The cost on the line from Jacksonville to Richmond where the heaviest density of traffic prevails—it doesn't prevail all the way, but on those sections of the line where the heaviest density of traffic prevails I should say that the unit cost on the proper measure would be slightly less than the system average cost of handling all commodities.

Q. Just one more question. Going back to the third criticism of the Commission in the Strawberry case to this effect, "That system car mile cost is representative of the cost on the main lines of heavy density, or relatively heavy density, traffic over which this strawberry traffic principally moves," that being a criticism by the Commission of the use of system car mile costs in that case. I ask you whether in your affidavit before the District Court at page 314 you did not say this, "that the third and last criticism was with respect to the difference in the main line and branch line [fol. 2374] cost. In his opinion (Mr. Lamb's opinion) this is not a material criticism. It is common knowledge that the preponderance of traffic is over the main line arteries and it is a reasonable assumption to say that at least ninety per cent of the traffic so moved. Therefore, the great preponder-

ance of this ninety percent of traffic would so over-weigh the ten per cent of traffic that there would be no perceptible effect upon the cost of the main line if the cost could be definitely determined separately and distinct from the cost over branch lines." Can you tell us now which statement you believed in, that one or the one you made a few moments ago or the one your counsel made?

A. I believe in both of them. That statement was made in connection with passenger operation and my other statement was made in connection with freight operation.

Q. At page 40 of the petition for reconsideration in the Strawberry case to which I have previously referred and which I think I handed you, the following appears: "The Commission has brushed aside a cost study prepared by a well qualified expert with no evidence of errors therein and because of two or three rather technical objections which have been indisputably shown to be unsound and despite the fact that careful, accurate and complete analysis of the entire cost study indicates very strongly that the costs [fol. 2375] shown are too small rather than too great." Do you agree with that as a statement of fact or as a mere argument of counsel, unsupported by counsel, and inserted in the petition for reconsideration before the Commission?

A. I think that statement of fact in connection with the passenger operation, Mr. Hall, would not apply with equal force to freight.

Q. That is not an answer to my question, I submit.

W. F. Kennedy, a witness on behalf of the defendants, having been first duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am William F. Kennedy, Louisville, Kentucky, Assistant Comptroller, Louisville & Nashville Railroad Company. I have been in the service of the Louisville & Nashville Railroad Company, Accounting Department, for about thirty-four years, and until 1908 filled various clerical positions in the office of the Auditor of Receipts. From 1908 to 1909 I held the positions of general clerk, general bookkeeper, statistician, and valuation accountant, successively, in the office of the Comptroller. From March 1, 1919, to the end

of Federal control, I was Auditor for the Louisville & Nashville Railroad Company (Corporation), and from March [fol. 2376] 1, 1920, to the present time, successively, auditor of capital expenditures and assistant comptroller.

I have examined Mr. Hodkinson's Exhibits Nos. 1 to 10, presented in this proceeding in behalf of the petitioners, the Baltimore & Ohio Railroad Company, the Pennsylvania Railroad Company, and the Richmond, Fredericksburg and Potomac Railroad Company.

I will discuss the items in the order in which they appear on Mr. Hodkinson's Exhibit No. 1. The first item, Investment in Road and Equipment, may or may not approximate the value of the property for rate-making purposes, but I note that nothing is included for working capital embracing cash and materials and supplies, which should be included. The figures stated include very large sums representing investment in freight-train cars, which amounts should have been eliminated as the cars which are used in the movement of citrus fruit are refrigerator cars belonging to companies other than the three roads named, being leased from the owners at a rental of 2¢ per car mile. This situation in respect to the investment in cars is given recognition by Mr. Hodkinson when he excludes freight-train car repairs, depreciation, and retirements from operating expenses, and includes in his costs of handling citrus fruit the refrigerator car rental of 2¢ per mile.

[fol. 2377] The second item, Investment in Road and Equipment—Freight Proportion, is obtained by taking the proportion of Investment in Road and Equipment represented by the percentage of freight operating expenses as adjusted, to total operating expenses, presumably on the theory that the separation of operating expenses as between freight service and passenger service reflects the use made of the property in the two services, respectively. No attempt is made to actually separate Investment in Road and Equipment between road items and the various different facilities embraced therein on the one hand, and equipment on the other, notwithstanding that materially different amounts would have been obtained as the freight proportion of Investment in Road and Equipment if a segregation of the property had been made.

Item 5-A, Total Operating Expenses—Freight, is the amount reported to the Interstate Commerce Commission

and is obtained under the application of the rules of the Commission for the separation of operating expenses as between freight service and passenger and allied services. Under the accounting rules of the Interstate Commerce Commission numerous accounts are provided for the segregation of operating expenses, but only 70 per cent approximately of total operating expenses is represented by ac- [fol. 2378] counts which can be directly assigned to either of the two services, the remaining thirty per cent being apportioned upon arbitrary bases prescribed by the Commission. Freight-train car repairs, depreciation, and retirements constitute about 13 per cent of this 70 per cent, so that when these expenses are eliminated, the percentage which is allocated under the Commission's formula is only approximately 53 per cent. This 47 per cent of the amount stated as freight is arrived at by arbitrary apportionment.

Items 5-C, 5-D, and 5-E, for Freight-Train Car Repairs, Depreciation, and Retirements, are deducted in Exhibit No. 1, presumably for the reason that subsequently in computing the cost of handling citrus fruit the car rental of 2¢ per mile is directly charged to the handling of citrus fruit. The amount deducted represents only the allocated charges to the three accounts, and does not include any of the overhead and other accounts subject to distribution to freight-train cars, which overhead and distributed accounts amount to 7.726%, 11.865%, and 13.782%, for the Baltimore & Ohio, the Pennsylvania, and the Richmond, Fredericksburg & Potomac respectively. It is noted that nothing has been deducted for the maintenance of shops and engine houses and the proportion of the two overhead and distributed accounts applicable thereto; nothing is deducted for the maintenance and operation of coal and [fol. 2379] ore wharves, which are assignable directly to the coal traffic; nothing is deducted for station platform and excess clerical expenses assignable to the handling of less carload traffic; nor is any deduction made for traffic and general expenses distributable to the foregoing items. No deduction is made for the cost of handling company material chargeable to the passenger traffic, the expense of which is initially included in freight operating expenses. Freight operating expenses include expenses of certain operations which are not segregated in the accounts and which to a certain extent could be segregated only on the

basis of apportionments, such as intraterminal switching; water transfers of freight, vehicles, and livestock; storage of freight; telegraph and telephone lines, which are leased to outside companies; grain elevators; stock yards; the production of power for others; buildings and other property rented to others; the miscellaneous use of property, payment for which is credited to revenue account No. 143; and the expenses of joint facilities in connection with which revenues are obtained. Obviously recognition must be given to the fact that the expenses in connection with the foregoing items have no relation to the handling of some one commodity, or group of commodities, such as citrus fruit, and the expenses should have been eliminated. Since it is more or less impracticable to definitely ascertain the [fol. 2380] amount of the expenses attributable to these operations, the revenues therefrom remain the only recorded fact for purposes of adjustment, and if these revenues had been deducted from freight operating expenses, the reduction would have amounted to $4,351,003.00 for the Baltimore & Ohio, $15,492,450.00 for the Pennsylvania, and $432,268,000 for the Richmond, Fredericksburg & Potomac.

I have prepared an exhibit arranged in somewhat the same form as No. 1, submitted by Mr. Hodkinson, which shows, among other things, the amount of the freight operating expenses after adjustment has been made for the items referred to in the foregoing. There was deducted from freight operating expenses in Hodkinson's Exhibit No. 1 for the Baltimore & Ohio Railroad only $18,788,900.00, whereas the total deductions, as heretofore explained, in my exhibit amount to $36,479,700.00; for the Pennsylvania Railroad Hodkinson's Exhibit deducts $53,304,448.00, whereas my exhibit deducts $110,833,347.00; for the Richmond, Fredericksburg & Potomac, Hodkinson deducts $462,764.00, whereas my exhibit deducts $1,553,778.00. The net freight operating expenses applicable to citrus fruit, as shown in my exhibit, amounts to per total freight car mile for the Baltimore & Ohio 9.037¢, for the Pennsylvania Railroad 8.855¢, and for the Richmond, Fredericksburg & Potomac 6.546¢, compared with for the Baltimore & Ohio [fol. 2381] 10.564¢, for the Pennsylvania 10.955¢, and for the Richmond, Fredericksburg & Potomac 9.060¢, as shown in Hodkinson's Exhibit No. 1.

The freight operating expenses shown in Hodkinson's Exhibit No. 1 are those for the entire systems of the three roads named, and are not the specific expenses of the lines over which the citrus fruit dealt with in the exhibit moves. Operating unit costs vary widely on different railroads, and on different sections or operating divisions of the same railroad. Operating unit costs are influenced to a considerable extent by the volume of traffic ordinarily measured in ton miles per mile of road, the average haul of the revenue ton, the tons per loaded car, the number of cars per train, the relation of empty movement to loaded movement of cars the character of motive power used, and the characteristics of the road in the matter of single or double track, weight of rail, etc., all of which must be on a parity before the unit costs of such large systems as the Baltimore & Ohio and the Pennsylvania can be applied to such small portions thereof as is used in handling the citrus fruit movement under consideration. The Hudkinson Exhibit makes no allowance for all of these items that I have referred to. It does not take them into consideration at all.

That a great disparity exists in the matter of unit costs [fol. 2382] dependent on the factors mentioned above can be illustrated by comparing certain operating results of the Chesapeake & Ohio Railway Company with those of the Pennsylvania Railroad Company. For the Chesapeake & Ohio Railway Company the revenue ton miles per mile of road are 6,962,257, the average haul per revenue ton 272.62 miles, the average net tons per loaded car 42.86, and the net tons per train 1,430, while similar data for the Pennsylvania System is 4,660,584, 210.17, 31.00, and 1.010, respectively. It will be observed that the operating factors all indicate more favorable operations on the Chesapeake & Ohio from a cost standpoint, and this is borne out by a comparison of the unit cost of freight operating expenses per loaded car mile being 15.818¢ for the Chesapeake & Ohio, contrasting with 20.346¢ for the Pennsylvania, and freight operating expenses per reveune ton mile, being .387¢ for the Chesapeake & Ohio contrasted with .716¢ for the Pennsylvania. This comparison illustrates in a striking manner the effect of more favorable conditions on operating unit costs. Other witnesses will testify as to certain operating statistics developed for the lines of the Pennsylvania and the Baltimore & Ohio, over which the citrus fruit

actually moves, which tend to show that the use of system average costs when applied to the movement of citrus fruit produces greater operating expenses for that traffic than [fol. 2383] could be found using average costs representative of the lines over which the citrus fruit actually moves.

Item No. 6 of Hodkinson's Exhibit No. 1 shows total railway taxes and Item No. 7 is the freight proportion thereof on the basis of total operating expenses as adjusted. Here again, as in the case of Investment, no attempt is made to eliminate the actual taxes on freight-train cars, arbitrary apportionment on the basis of operating expenses being relied upon to accomplish this.

It is asserted in the Hodkinson exhibits that his method produces a deficit of $53,469.79. This whole presentation is not a representative and meticulously detailed cost study, but is simply the application of average car mile cost for the system, embracing the movement of all kinds of commodities of various length of haul and load per car with varying empty movement relationship, to the movement of one specific group of commodities having a different average length of haul, a different load per car, and a different empty movement relationship, and which specific commodity group moves over only a small part of the great Baltimore & Ohio and Pennsylvania systems. Transportation operating expenses are controlled on practically all railroads to a very great extent by train tonnage, and to a monor extent by the number of cars per train where pass- [fol. 2384] ing track facilities will permit of only a maximum number being accommodated. When it is considered that there is necessarily a very great percentage of empty movement of cars and that different commodities vary widely in the number of tons per car, it becomes apparent that an average expense per car-mile, including both loaded and empty movement cannot be representative of the cost of handling any specific commodity, or group of commodities, and this can be illustrated by comparing the tonnage data for coal traffic and box car traffic on the one hand and citrus fruit on the other. The average tons per car for coal traffic is approximately 50, for box car traffic approximately 25, and for citrus fruit 16.7; the tare weight of cars for coal traffic is approximately 22 tons, for box car traffic approximately 22 tons, and for citrus fruit traffic approximately 26½ tons; and the average percentage of empty

movement to loaded movement for coal is 95%, for box car traffic 25%, and for the citrus fruit movement under consideration 89%. The average tare weight of the empty movement per loaded car would, therefore, be for coal traffic 21 tons, for boxcar traffic 5½ tons, and for citrus fruit 23.6 tons. The total gross weight per loaded car including empty movement for coal traffic aggregates approximately 93 tons, for box car traffic 52½ tons, and for citrus fruit 66.8 tons. It is fairly obvious that the use of average car [fol. 2385] mile costs, including loaded and empty movement, will tend to understate the cost of traffic having the greater gross tons per loaded car, including empty movement, and to overstate the cost of traffic having the smaller gross tons per car including empty movement. The only available statistical factor which gives consideration to the varying tons per car, the varying tare weight of cars, and the varying relationship of empty movement to loaded movement, is the gross ton mile, which is computed by taking into consideration the tare weight of the car, both loaded and empty, and the contents of the car; in other words, it is the weight as expressed in gross ton miles behind the locomotive.

I offer in evidence Exhibit No. 1, which has been prepared by me, and in this exhibit, after making the adjustments in freight operating expenses, as heretofore explained, the system costs are assigned to citrus fruit on the basis of gross ton miles, that is to say that the percentage of gross ton miles made by all the cars of citrus fruit to destinations on the Baltimore & Ohio and the Pennsylvania Railroad, as shown in Hodkinson's Exhibit No. 2, have been computed, page 9 of this exhibit, and, likewise, the gross ton miles for all traffic of the three roads have been computed, sheet 4 of this exhibit, and the percentage relationship of the gross ton miles of citrus fruit to the system [fol. 2386] gross ton miles ascertained for each of the three roads. The important figures on this exhibit, showing the final results, are shown on sheet 2, and the remaining sheets are explanatory of the items shown on sheet 2, in all cases.

This percentage for the Baltimore & Ohio is, .0462%, for the Pennsylvania 2.022%, and for the Richmond, Fredericksburg & Potomac 8.6093%. This percentage is then applied to the adjusted freight operating expenses, and the proportion assignable to citrus fruit is ascertained,

as shown on sheet 2, line 21, of the exhibit. To the proportion of operating expenses is added the amount for railway tax accruals on the basis of the percentage of the citrus fruit operating expenses to net freight operating expenses applicable to citrus fruit, and there is also added the refrigerator car rental at 2¢ per mile which aggregates for total operating expenses, taxes, and car rental assignable to citrus fruit, line 25 of the exhibit, $63,160.00 for the Baltimore & Ohio, $653,121.00 for the Pennsylvania, and $336,010.00 for the Richmond, Fredericksburg and Potomac. The proportion of the citrus fruit revenues north of Richmond, as divided under the Interstate Commerce Commission's decision, Hodkinson's Exhibit No. 10, line 26 of my exhibit, were for the Baltimore & Ohio $84,540.00, for the Pennsylvania $748,340.00, and for the Richmond, Fredericksburg & Potomac $402,249.00. This leaves net income, line [fol. 2387] 27 of the exhibit, as follows: For the Baltimore & Ohio $21,380.00, for the Pennsylvania $95,219.00, and for the Richmond, Fredericksburg & Potomac $66,239.00, which contrasts with the results obtained by Mr. Hodkinson's Exhibit No. 10, Baltimore & Ohio net income $13,368.67, Pennsylvania, net deficit $65,578.90, and Richmond, Fredericksburg & Potomac, net deficit $1,295.56. Sheet 6 of my exhibit indicates that this study covers 2,530 cars handled by the B. & O., and on this basis there would be a net income to the B. & O. of $21,380.00, as shown on line 27, sheet 2.

The last two sections of my exhibit, lines 28 to 35, show the operating ratios for citrus fruit compared with the operating ratios for all business for each of the three roads. The ratio of the expenses of handling citrus fruit to the revenue obtained by the B. & O. out of the movement of this citrus fruit was 57.26% contrasted with the ratio of all operating expenses to all revenues from all business for the system 73.58%; the ratio of operating expenses and taxes to revenues for citrus fruit was 61.05% contrasted with 78.45% from all business; and the ratio of operating expenses, taxes, and car rental to citrus fruit revenues was 74.71% contrasted with 79.96% from all business. For the Pennsylvania Railroad, the ratio of expenses of handling the citrus fruit to the proportion of the revenues obtained therefrom was 65.61% contrasted with 72.20% as the ratio [fol. 2388] of all operating expenses to all revenues from all business on the system; the ratio of operating expenses and

taxes to revenues for citrus fruit was 71.06% contrasted with 78.19% for all business; and the ratio of operating expenses, taxes, and car rental to revenues for citrus fruit was 87.28% contrasted with 80.52% for all business. For the Richmond, Fredericksburg & Potomac Railroad, the ratio of the expenses of handling the citrus fruit to the proportion of revenues obtained therefrom was 60.82% contrasted with the ratio of all operating expenses to all revenues from all business for the system 68.75%; the ratio of operating expenses and taxes to revenues for citrus fruit was 65.91% contrasted with 74.50% for all business; and the ratio of operating expenses, taxes, and car rental to revenues for citrus fruit was 83.53%, contrasted with 79.44% for all business.

By the way that I work the thing out on the basis I have used, I get results quite the reverse of confiscation, so far as the Eastern roads are concerned.

By Judge Sop

It shows your Honor, according to those figures that the B. & O. and Pennsylvania obtain a great- percentage from investment on citrus fruit than on all business.

It should be borne in mind, however, in considering the comparison of the ratios of operating expenses, taxes and [fol. 2389] car rental to revenues, citrus fruit as contrasted with all business for the systems, that the citrus fruit expenses include car rental on all of the cars used in moving the business, and that this car rental contains a proportion which represents return on investment to the owners of the cars and is charged to the citrus fruit to a greater extent than is the similar item represented by equipment and joint facility rents included in the expense for the system, so that one would expect to see the ratio for the citrus fruit somewhat higher than that for all business by reason of the fact that a greater proportion of return on investment has been included as part of the cost in the case of citrus fruit than is included in computing the comparable ratio for all business for the systems.

Stated in another way, this comparison of these operating ratios means that out of ever dollar of revenue from citrus fruit the Baltimore & Ohio earns as return on investment 25.29¢ compared with 20.04¢ for all business for the system; the Pennsylvania Railroad earns 12.72¢ from citrus

fruit compared with 19.48¢ from all business for the system; and the Richmond, Fredericksburg & Potomac retains 16.47¢ from citrus fruit compared with 20.56¢ from all business for the system. I mean that is net revenue over and above operating expenses, taxes and rents.

[fol. 2390] I mean that my figures show that the average return to the B. & O. over and above all expenses of every kind is twenty percent on the dollar of revenue earned. In other words, out of every dollar earned they retained 25.29¢ to apply on investment. That does not equal twenty percent return on the investment. It is twenty cents net profit out of the operating dollar. In other words, my computation tends to show that the net revenues of the Baltimore & Ohio Railroad, after paying every conceivable kind of expense except return on property, is twenty percent on the dollar. You understand, this is computed on this basis for citrus fruit. For example I show here that the computations made in my Exhibit No. 1 produce 25.29¢ for citrus fruit on the Baltimore & Ohio. That is contrasted with their system average on all business of 20.04¢. The average net earnings of the B. & O. out of every dollar received in revenue is 20¢ clear profit to apply towards investment, and that so far as citrus fruit is concerned they get 25¢. This 20¢ is an actual fact according to the revenue and expenses recorded for the year 1929.

By Mr. Gwathmey:

The reason why the Baltimore & Ohio makes a better earning on citrus fruit than the Pennsylvania does as compared with the general return from all traffic may be due to either one of two causes, one of which has been discussed here in some detail yesterday, relative to the minimum division factor, and the other is that this gross ton mile basis [fol. 2391] is subject to the same criticism that has been made of the car mile basis in that it understates the terminal expense when applied to a haul that is shorter than that for the system. I have not made that also on the car mile basis.

I stated heretofore in my testimony that Mr. Hodkinson's presentation could not be considered as a detailed and meticulous cost study developing the actual cost of handling citrus fruit on the lines of the Baltimore & Ohio, the Pennsylvania, and the Richmond, Fredericksburg & Potomac, and I do not claim that the exhibit presented by me presents

such a study or develops the actual costs of handling citrus fruit, but my exhibit does disclose wherein Mr. Hodkinson erred in the matter of not eliminating certain definite expenses not related to the handling of citrus fruit, either through the medium of deducting the expenses actually incurred or through the medium of deducting the revenues from the operations in connection with which the expenses are incurred, and with the correction of these errors and by the substitution of the use of the gross ton mile factor, which, in my opinion, produces more representative unit costs than does the car mile factor, I have shown that it can fairly be demonstrated that the true situation is exactly the reverse of that claimed to exist by Mr. Hodkinson, in that the deficit of $53,469.79, which he claims was incurred in connection with the handling of this traffic, has been con- [fol. 2392] verted to net income of $182,838.00 for the three roads.

By Judge Soper:

Referring to my last testimony I compared a deficit of $53,000 shown by Mr. Hodkinson with a surplus of net income as shown by me of $182,000. That deficit is one developed by his series of Exhibits 1 to 10 which were those presenting the car mile basis. I am comparing his result on the car mile basis with mine on the ton mile basis.

Judge Soper: I understand Mr. Kennedy thinks certain deductions ought to have been made that Mr. Hodkinson did not. My inquiry is whether Mr. Hodkinson's exhibit on the ton mile basis pretended to show a deficit.

Mr. Beach: No, sir; it showed a surplus for the Pennsylvania of $31,000; for the Baltimore & Ohio of $24,000; for R., F. & P. $15,900, a combined surplus of about $60,000.

Judge Soper: It seems to me those would be the proper figures. If this witness is attempting to show the difference between his calculation and Mr. Hodkinson's, he ought to show he finds a surplus of $182,000 and Mr. Hodkinson finds a surplus of $62,000.

Witness: Mr. Hodkinson has also presented in this proceeding his Exhibits Nos. C-1 to C-7, inclusive, dealing with [fol. 2393] the movement of citrus fruit via Ohio River Gateway to destinations in Central Freight Association Territory on the Baltimore and Ohio Railroad, the Chesapeake and Ohio Railway, the Chicago and Eastern Illinois,

the Chicago, Indianapolis and Louisville, the Cleveland, Cincinnati, Chicago and St. Louis, the Erie Railroad, the Evansville, Indiana, and Terre Haute Railway, and the Pennsylvania Railroad involving single line hauls only during the 1928 and 1929 season's movement from Florida. These exhibits are prepared along the same lines as are Exhibits Nos. 1 to 10 also presented in this case covering the movement of citrus fruit during the same season from Florida to destinations in Trunk Line Territory on the Baltimore and Ohio and the Pennsylvania. There were 4,662 cars involved in this movement, and, according to Mr. Hodkinson's Exhibit No. C-1, the proportion of the revenue accruing to the northern lines amounted, under the Commission's decision, to $285,064.00. In the summary exhibit, Hodkinson's No. C-7, the results found by him for the movement via Richmond, Va., to destinations on the Baltimore and Ohio and the Pennsylvania in Trunk Line Territory was also included with the results of the 4,662 cars to points in Central Freight Association Territory, and it is claimed that in the aggregate the expenses exceed the revenues by $862.64.

[fol. 2394] Mr. Hodkinson's Exhibit No. 10 shows under the methods pursued by him that the expenses exceeded the revenues on the cars to destinations on the Pennsylvania and the Baltimore and Ohio in Trunk Line Territory by $53,469.79, and, as those results are combined in Exhibit No. C-7 with the results in connection with cars moving to destinations in Central Freight Association Territory, the difference between the aggregate deficit of $862.64, claimed by Mr. Hodkinson on the movement to both territories, and the deficit of $53,469.79 claimed for the movement to Trunk Line destinations necessarily results in a surplus of $52,607.15, for lines north of the Ohio River, according to Mr. Hodkinson's calculation. I have already made certain comments in connection with the methods used by Mr. Hodkinson, particularly in the matter of the use of system averages and the car mile basis of apportioning expenses, and these comments apply with equal force to his Exhibits Nos. C-1 to C-7, inclusive.

I have also prepared and now offer in evidence my Exhibit No. 2, which is compiled along the same lines as heretofore explained for my Exhibit No. 1. The basic data as

to the movements and the computation of the proportions of the revenues north of Richmond and north of the Ohio River Gateways have been taken from Mr. Hodkinson's Exhibits C-1 to C-7, inclusive. My exhibit shows that after [fol. 2395] making certain deductions for expenses not applicable to the movement of citrus fruit, adjusting for the cost of handling non-revenue ton miles chargeable to passenger traffic, and substituting the gross ton mile basis for the car mile basis used by Mr. Hodkinson, that the net income to the various roads accruing on the hauls to the destinations selected by Mr. Hodkinson were as follows, as shown by line 27; Chesapeake and Ohio Railway (including Hocking Valley), $13,428.00; Chicago and Eastern Illinois, $6,286.00; C. C. C. and St. L. (including Cincinnati Northern), $38,847.00; Erie Railroad (inc. Chicago and Erie), $507.00; Evansville, Indiana, and Terre Haute, $45.00; Chicago, Indianapolis, and Louisville $1,205.00; Baltimore and Ohio, $13,247.00; and Pennsylvania Railroad (including W., J. & S.), $17,459.00. The total net income to the Central Freight Association destinations considered for the eight roads, as shown by line 27, amounted to $91,024.00; the total net income to destinations in Trunk Line Territory on the Baltimore and Ohio and the Pennsylvania Railroad, also shown on line 27, taken from my Exhibit No. 1, to $182,838.00; and the aggregate net income to the combined Central Freight Association and Trunk Line destinations amounted to $273,862.00, also shown on Line 27. This showing contrasts with the deficit of $862.64 claimed by Mr. [fol. 2396] Hodkinson for destinations in both territories; the deficit of $53,469.79 claimed for destinations in Trunk Line Territory; and the surplus of $52,607.15, which is developed by deducting the deficit claimed for both territories from the deficit claimed for destinations in Trunk Line Territories by Mr. Hodkinson.

Lines 28 to 35 of my Exhibit No. 2 shows a comparison of the operating ratios for citrus fruit with the operating ratios for all business for each of the roads involved in the movement selected by Mr. Hodkinson to Central Freight Association Territory. It will be observed that in the case of each road the ratio of operating expenses, taxes, and car rental to revenues for the citrus fruit is materially lower than the ratio of operating expenses, taxes, and rents to revenues from all business, except in the case of the Erie

Railroad where the citrus fruit ratio is slightly in excess of the ratio for all business. For the eight Central Freight Association roads combined the ratio of operating expenses, taxes, and car rental to revenues for citrus fruit is 68.07%, which compares with 80.04% as the ratio of operating expenses, taxes, and rents to revenues from all business. For the Central Freight Association roads and the Trunk Line roads combined the ratio of operating expenses, taxes, and car rental to revenues for citrus fruit is 81.99%, contrasted [fol. 2397] with 80.17%, the latter being the ratio of operating expenses, taxes, and rents to revenues from all business.

To state the matter in another way, this means that to the the destinations in Central Freight Association Territory on the eight roads under consideration that out of every dollar of revenue accruing north of the Ohio River Gateways the roads retain an average of 31.93¢ to apply as return on Investment, whereas they retain only 19.96¢ from every dollar of revenue from all business; and for all of the destinations selected in Central Freight Association and Trunk Line Territory combined the roads retain on an average from every dollar of revenue from citrus fruit accruing north of Richmond, Va., or the Ohio River Gateways 18.01¢, which from every dollar of revenue from all business they retain on an average 19.83¢

Mr. Hodkinson followed the same methods in the preparation of his Exhibits C-1 to C-7, inclusive, as he did in connection with his Exhibits Nos. 1 to 10, and, as is the case with Exhibits Nos. 1 to 10, Exhibits Nos. C-1 to C-7 can not be considered as a detailed and meticulous cost study developing the actual cost of handling citrus fruit on the lines of the eight roads in Central Freight Association Territory. I do not claim that Exhibit No. 2 presented by me presents such a study for the Central Freight Association Lines, or develops the actual cost of handling citrus fruit, but my [fol. 2398] exhibit does disclose wherein Mr. Hodkinson erred in the matter of not eliminating certain definite expenses not related to the handling of citrus fruit, either through the medium of deducting the expenses actually incurred, or through the medium of deducting the revenues from the operations in connection with which expenses are incurred, and, with the correction of these errors and by the substitution of the use of the gross ton mile factor, which

latter obviously produces more representative unit costs than does the car mile factor, I have shown in the case of the movement to the destinations selected in Central Freight Association Territory, as well as to the destinations in Trunk line Territory covered by my Exhibit No. 1, that it can fairly be demonstrated that the true situation is far more favorable to the Central Freight Association Lines than pictured by Mr. Hodkinson in his Exhibits Nos. C-1 to C-7, in that the surplus of $52,607.15, found by Mr. Hodkinson, is shown by my exhibit to materially exceed that figure—in fact to amount to $91,024.00, and taking the entire movement considered by Mr. Hodkinson to both Central Freight Association and Trunk Line destinations the deficit of $862.64, found by him, has been converted to an income of $273,862.00 for all of the roads under consideration.

The purpose of Kennedy's Exhibit No. 2 is the same as [fol. 2399] in the case of No. 1, that is to contrast the showing made on a gross ton mile basis with these expenses corrected in the manner in which I think they should be corrected, with the car mile basis originally submitted by Mr. Hodkinson covering the same territory and the same destinations on the C. F. A. lines.

Mr. Gwathmey: May I add that we make the same reservation with respect to this exhibit, namely, that we are not offering it as purporting to show cost but to show that as long as you use system averages you get these varying results.

Witness: There is one point on this exhibit I would like to direct your Honors' attention to and that is that Mr. Hodkinson's Exhibit C-7 computes an aggregate deficit of $862.64 which is the combined showing for all the destinations considered here in C. F. A. territory and Trunk Line Territory. In his original series of exhibits covering Trunk Line destinations only he developed a deficit of $53,469.79 so that obviously by mathematical deductions the C. F. A. lines necessarily on a car mile basis show a surplus of $52,607.15.

By Judge Chesnut:

The figures do not appear in my Exhibit No. 2 That is the result shown by Mr. Hodkinson's Exhibit. My final fig- [fol. 2400] ure in Exhibit No. 2 is on sheet 2-A.

I wish to point out that this exhibit shows on sheet 2, line 37, that under the methods used in preparing this exhibit the net income remaining to the Chesapeake & Ohio Railway on citrus fruit was $13,428; to the Chicago & Eastern Illinois $6,286; to the Cleveland, Cincinnati, Chicago & St. Louis, including the Cincinnati Northern $38,847; to the Erie Railroad, including the Chicago & Erie, $507; to the Evansville, Indiana & Terre Haute $45; to the Chicago, Indianapolis & Louisville $1,205; to the Baltimore & Ohio $13,247; and to the Pennsylvania Railroad $17,459.

By Mr. Gwathmey:

If you will look at the latter sheets of the exhibit it is possible to tell exactly how many cars were handled by each one of these roads. The total handled by the Chesapeake & Ohio was 477 cars on which, according to this exhibit, the net income was $13,428. I would like to point out that the total net income from citrus fruit to all of the lines in C. F. A. territory for which destinations are used amounted to $91,024, that the total net income which was taken from Exhibit No. 1, compared by me, for the destinations on the Baltimore & Ohio and the Pennsylvania in Trunk Line Territory is $182,838. Combining both of those exhibits, as shown in the last column of sheet 2-A of Exhibit No. 2, [fol. 2401] the net income is $273,862. That shows the eastern roads make more than the western roads in aggregate amount.

I would like to point out, as shown in the last column of this Exhibit No. 2, sheet 2-A, that the operating ratio for the combined movement of citrus fruit included in the exhibits, the ratio of expense to revenue was 61.05 per cent which compares with the ratio of operating expense to revenue, all business, the average of all the roads combined, 72.38 per cent; that the ratio of operating expenses, taxes and car rentals to revenues for the citrus fruit for all of the roads combined is 81.99 per cent, to contrast with the average for all the roads, operating expenses, taxes and rents and all revenues from all business, 80.17 per cent.

By Judge Chesnut:

Q. How was your conclusion in that respect related to what the Commission says that the cost of doing citrus fruit business is more expensive than the average traffic of the

railroad? Your figures seem to reach quite a different conclusion, do they not, than that generally taken by the Commission?

A. No, sir; I do not think so, your Honor, for the reason that if these operating expenses here developed were re-
[fol. 2402] duced to some comparable unit here such as a net ton mile or revenue ton mile, the expenses here developed for revenue ton mile for citrus fruit exceed in all cases the average expense per net ton mile for the system of any of these roads.

Q. But do not you conclude that relatively the citrus fruit business is more profitable, while the expense unit for citrus fruit is more than the expense for average unit of all commodities, yet the revenue per unit of citrus fruit is so much higher that the railroads can afford to spend the extra money to get the business and still have a profit. Is that a fair summary of what your figures indicate?

A. Yes, sir, that would be a fair conclusion to draw from this exhibit that I presented, considering the basis used in its preparation.

These figures show that the average profit on citrus fruit deliveries for the Baltimore & Ohio is twenty per cent better than for all business, and varying for the other roads.

By Mr. Gwathmey:

While I am not advocating the gross ton mile business, in my opinion it is a more reliable basis than the car mile basis if you are going to use system average costs at all.

[fol. 2403] Cross-examination.

By Mr. Beach:

I see no objection to the gross ton mile as a reliable basis in arriving at or determining how many cents of each revenue dollar the Atlantic Coast Line and Seaboard got out of this traffic, if you take into consideration the exceptions that exist as I have pointed out here. In arriving at the 25.29 cents that I referred to as the Baltimore & Ohio profit out of each dollar revenue, that was obtained by taking the figure 74.71 shown in line 31 and subtracting it from one dollar. If Mr. Albert's exhibit which is prepared on the identical theory that this is, shows that the similar ratio for the Atlantic Coast Line is 67.96 and for the Seaboard Air Line

62.02 I would say that their profit is 32.04 cents and 37.98 cents, respectively, out of each revenue dollar, with the same reservations I have made in regard to the other calculation.

Bearing in mind that the average haul on the Baltimore & Ohio on citrus traffic is about 113 miles as compared with the average system haul of 190 miles, I would say that the application of either the gross ton mile unit or the car mile unit would not overstate the cost of transportation of the Baltimore & Ohio as to citrus fruit. It would have a tendency to understate it. In other words, there is such a dis- [fol. 2404] parity there between the two hauls that the terminal is not given full effect.

Judge Soper: Figures the witness gave would indicate a profit of thirty-two cents out of every dollar for the Atlantic Coast Line with reference to citrus fruit transportation?

Mr. Beach: 32.04 cents for the Atlantic Coast Line and 37.98 for the Seaboard Air Line. The average figure for all freight for those two roads is eighteen cents for the Atlantic Coast Line and nineteen cents for the Seaboard Air Line, out of a dollar.

By Judge Soper:

These comparative figures, prepared on this basis, would indicate that the citrus fruit business of the southern roads is more profitable than their general business. These figures would show that there is a bigger difference between the average on the citrus fruit surplus in the south than in the north.

By Mr. Beach:

The average operating expense ratio for all business on the Pennsylvania is 80.52. It is 87.28 to destinations in Trunk Line Territory and 76.71 to destinations in Central [fol. 2405] Freight Association territory.

J. S. Tassin, a witness on behalf of the defendants, being first duly sworn, testified as follows:

Mr. Clark: If you will permit me to explain Mr. Tassin's exhibit, I think you can follow the witness better. The first

part you will see is headed "Synopsis." There are fifteen points as there described that Mr. Tassin will discuss as showing the frailty of the Hodkinson exhibits. You will find the underlying papers contain a write-up, as it were, of each one of those points and in connection therewith there are certain exhibits which I have marked in pencil by the point number so that if you want to see the underlying exhibit as he discusses point No. 2, you will find the exhibit marked in pencil "Point No. 2." If you will look then at the first one of the underlying exhibits, you will see the figures in parentheses 1, 8, 9 and Mr. Tassin can refer to that if it will help identify the exhibit. As you turn over the next set of them you will find the figure is 2-7. They look so much alike that I mention that so that if it will help you I will ask him to refer to them in that way. Let me explain to the Court that the witness will not read either of what [fol. 2406] might be termed the memorandum write-up which you have on those fifteen points. He will discuss it and it is gotten up that way to aid the Court in certain questions you may care to ask and we will be glad for you to do so, and also to aid in cross-examination to save having to go back to the witness with a long explanation to connect up the question.

Examined by Mr. Clark:

I am J. S. Tassin, Washington, D. C.; I am General Statistician with the Southern Railway System Lines. I am a member of the Accounting Department. That embraces what is known as the science or profession of railway accounting.

Our method of keeping our accounts and preparing our statistics is prescribed for us by the Interstate Commerce Commission. Apart from that my particular duties are to make such cost studies as may be demanded by the railroad in its defense in various proceedings before the Commission and the Courts, and to make such statistical analyses as may be required. If a question comes up with respect to the handling of a particular part of the traffic or from a particular part of the system, it is submitted to you to make a cost study and advise the management the result. In that work I am thrown with the operating, traffic and other departments of the railroad. I have had thirty-one years' ex- [fol. 2407] perience in railway accounting. It has been

with the Southern Railway System Lines and predecessor companies.

The roads which make up the Southern Railway System Lines are Southern Railway Company; the Cincinnati, New Orleans & Texas Pacific Railway Company; the Alabama Great Southern Railroad Company; the New Orleans & Northeastern Railroad Company; Northern Alabama Railway; Georgia Southern & Florida Railway Company. Those are our six class 1 roads as classified by the Interstate Commerce Commission, having normal revenue above one million dollars a year. We have some smaller subsidiaries. The Railway Express Agency does not operate over our railway. It is a successor operator company of the old American Railway Express. Southeastern Express Company operates over the lines of the Southern Railway System. It has no connection with the present Railway Express Agency or former American Railway Express. That is true also with respect to the Mobile & Ohio Railroad. It is not a part of the Southern Railway System.

I have heard Mr. Lamb's exhibit in the Strawberry case discussed. The Southern Railway System Lines took no part in the Strawberry case, and that exhibit was not submitted to me before it was introduced or used in that case. I heard of it afterwards.

My conclusion about that exhibit when it first came to my attention was that it was not determinative of cost. [fol. 2408] Mr. Lamb did not speak for the Southern Railway System Lines with respect thereto.

I have prepared, or had prepared under my direction, some exhibits to be used in connection with my testimony here. They are true and correct to the best of my knowledge and belief.

I have examined Mr. Hodkinson's exhibits, particularly his Exhibit No. 1 and Exhibit C-2. They are the two exhibits that carry what might be termed the unit expense that is carried on through his other exhibits. My conclusion, as a railway accountant, with respect to the Hodkinson study as reflected in those exhibits is that with the single exception of the two cents a mile rental charge on refrigerator cars, there has been no determination of cost in this case. There has not even been any reasonable approximation. Instead, there has been a generalization along statistical lines.

In support of my statement that there has been no determination of cost in this case with the single exception of the two cents a mile rental, and before I take up the detail points I wish to state briefly just how I reached that conclusion. I think that there been an unfortunate misunderstanding of the verbal statement made by the Interstate Commerce Commission to the point that the transportation of citrus is more costly than the transportation [fol. 2409] of the general run of freight, the average freight as it is referred to. Now, our friends have mistaken that expression of the Commission referred to as average freight or general run of freight as an average based upon the aggregate of all freight. Consequently they have not determined the cost of average freight or the general run of freight at all and instead have relied upon certain statistical generalizations that if they have any use at all, are merely as straws to indicate in which direction the wind is blowing. They are not unit costs in any sense of the word. I would like to make a very practical approach to this problem, if I may. If I went into a grocery store and saw a number of bins with various kinds of nuts in them, and each nut had its own price, and then the last bin of all the groceryman usually says "Mixed nuts," at so much a pound. That mixture varies according to the particular grocer and you cannot say that that pound of mixed nuts represents the average run of nuts in that store. Now, in order to help visualize that situation and having heard so much about system averages, I have determined in very simple terms the system ton for the Pennsylvania Railroad and the Baltimore & Ohio Railroad. The system ton on the Pensylvania Railroad consists of six pounds of citrus, thirty-one pounds of fresh fruits and vegetables, fifty-five pounds of other products of agricul- [fol. 2410] ture; seven pounds of live stock and poultry; eleven pounds of other agricultural products; 1,209 pounds of products of mines; 69 pounds of products of forests; 563 pounds of manufacturers and miscellaneous; and forty-nine pounds of less than carload freight, making up the total ton of 2,000 pounds. Now, of that ton of 2,000 pounds 740 pounds represents what originated and terminated on the line itself. 1,000 pounds represents what either originated or terminated so that there was either a receiving service or a terminating service, but not both; and 260 pounds represents a purely overhead movement with nei-

ther origination nor termination on the Pennsylvania Railroad. That is the mixed ton, as I will call it in comparison to the mixed pound of nuts.

The system ton of the Baltimore & Ohio consists of four pounds of citrus, fourteen pounds of fresh fruits and vegetables, sixty pounds of other products of agriculture, twelve pounds of livestock and poultry, twelve pounds of other agricultural products, 1,220 pounds of products of mines, eighty-three pounds of products of forests, 557 pounds of manufacturers and miscellaneous, and thirty-eight pounds of less than carload freight, making 2,000 pounds in all. Divided again, 620 pounds originated and terminated on the Baltimore & Ohio, 1,180 pounds either originated or terminated on that line, 200 pounds were carried overhead, in that 2,000 pound ton.

[fol. 2411] So you see the meaninglessness of adding up a long list of different units, different physical units, and dividing them into a given column of expenses that inherently reflects all of these proportions. Your dividend set up in these exhibits is a constant and by varying your divisor you produce slightly different results. Now, those results are usually not very great and neither are they significant and it simply means, not that any particular divisor is correct but that all of them are equally wrong. These statistical generalizations, as I have explained, are not determinative of cost. There is an arbitrary assignment of expense made for all these various units and no reasonable approximation of cost by statistical methods.

Perhaps it will aid if I show the distinction between what we call cost accounting work and what we call statistical work. Sometimes we use one and sometimes we use the other. Cost acounting work proceeds from the particular to the general. If we want to establish the cost of anything we determine what that particular thing is and we build from the bottom up. If there are any particular of distinctive costs that apply to that particular thing we first ascertain what those costs are and set them up. Then where we find that other costs go to that particular thing and to other operations of the railway, we determine the [fol. 2412] proper method of making a prorate to that particular product and so we build up what we call the cost of transporting that particular product. It is an approximation based upon records available, supplemental by observation and experienced judgment. It is not a mathe-

matically exact determination of cost. It is constructed on the basis of the sample method that Mr. Beach explained, adequate in quality and ample in quantity.

Judge Chesnut: Would it interrupt you if someone would give me a reference to the page in the Commission's opinion which would protect your present assertion. I want to see what the language is there.

Judge Soper: The bottom of page 757 is one place: "The voluminous evidence descriptive of operating conditions cannot be translated into terms of costs for the purpose of comparing the two groups of roads in this respect. In general, it indicates that citrus fruit, like other perishable traffic, is given a specialized, expedited service which is undoubtedly more expensive than the ordinary run of freight, and that both the eastern and the southern carriers have equipped their plants and operating organization to this end."

Judge Chesnut: As I understand the point you are mak- [fol. 2413] ing is this: That that quotation, and possibly others similar to that in the opinion of the Commission, is meant to indicate only this, that it is more expensive, the quality of service in dollars of cost, to carry citrus fruit than say, coal, and that Commission had no reference to the quantity of a certain amount of coal as compared with an amount of citrus fruits. In other words, that they were thinking only of one car of citrus fruit and a typical car of coal, that it cost more to operate citrus fruit than it does coal. But, if you take what is so often referred to here as the weighted average cost, that is not what the Commission referred to at all.

A. That is my understanding of it, sir. On these two roads you will observe that products of mines constituted 1,209 pounds of the 2000 pounds composite ton on the Pennsylvania Railroad and on the Baltimore & Ohio it was 1,220 so that we might say on these two roads the general run of freight was products of mines.

Q. What you are calling to our attention, further, I understand is that cost computations are based on the assumption that the cost of citrus fruit traffic for the whole is greater than the cost of average traffic?

A. Well, if it is greater in particular it will be greater for the accumulation but I do not think the Commission

[fol. 2414] for a moment meant to compare the transportation of citrus with the average in the aggregate of all traffic because that average in the aggregate contains not only the expensive citrus traffic but also the expensive fresh fruit and vegetable traffic, livestock and poultry, other animal products less than carload traffic, all of those various kinds of traffic being equally, if not more expensive, than the citrus, perhaps.

It practically meant, as I understand, the Commission simply meant to say that it was more expensive to handle citrus, like other perishable or expedited freight, than it was to move dead freight. That is my practical understanding of the situation.

Mr. Clark: If your Honors please, in addition to the reference to page 757, may I call your Honors attention to what was said at page 742 in the report. It says "Complainants' (that is the southern lines) operating testimony merely indicates that the transportation of citrus fruits from Florida is much more costly than that of the general run of traffic." In other words, that was the first time the Commission had referred to that in its report, and it had in mind, as we see it, the difficulties of the southern carriers.

[fol. 2415] Witness: In the southwestern divisions case, I think it was, your Honors, the Supreme Court condemned the use of averages based on the aggregate and said that they had to determine what they called there the general mean of the situation.

Point No. 1. This cost unit that has been used and applied indiscriminately to traffic all over the systems of railroads condemns itself on its face by producing greater deficit in the transportation of a like car of citrus from Pittsburgh to Philadelphia, say, where there is no dispute about the proportion of the revenue which the Pennsylvania receives. The deficit in that case on an eighteen ton car was $24. Whereas a car moving from Richmond to New York adding the expense of the R., F. & P. to the expense to the Pennsylvania and comparing that with the divisions prescribed by the Commission there is only $2 a car deficit indicated. As a matter of common business judgment, considering that the Florida citrus is only about fifty per cent of the total citrus terminated by those lines, it is unthinkable that they would willingly accept of their own

initiative a proportion of revenue that would give them a deficit of $24 a car. Therefore, I say this computation of cost is wholly unreliable. That is Point No. 1.

Point No. 2, and in connection with that Point No. 2 I refer to my Exhibits 1, 8, 9 and 2 to 7 inclusive, and the [fol. 2416] underlying data. If the principle here applied by our friends to a part of freight traffic alone, if that identical principle had been applied to the total of freight traffic it would have reduced our indicated earnings of 6.20 per cent to 1.11 per cent, evidently an absurd result.

By Mr. Beach:

I am using the year 1929. I have adhered to 1929 altogether.

By Judge Soper:

Referring to Point No. 2 in my Exhibits 1, 8 and 9 and to the deficit of $24 which I compare to the alleged deficit of $2, there is an exhibit that has been submitted in this case by Mr. Doss which furnishes the distance and the revenue on the movement from Pittsburgh to Philadelphia and I applied this identical unit of cost which has been universally applied in contrast with that indicated revenue.

By Judge Chesnut:

The Doss exhibit shows the proportions of the through rate that the Pennsylvania Railroad and the eastern Trunk Lines generally voluntarily accept in transporting that citrus from the West.

By Judge Soper:

Q. You are on Point 2. You were saying that the oper- [fol. 2417] ating results for the total reduced the Pennsylvania's return on its property devoted to freight transportation service from 6.20 per cent to 1.11 per cent.

A. Yes, your Honor, that is the result of applying the principle that they did apply to a part of the freight, namely, citrus, to freight traffic as a whole. Witness Hodkinson in his Exhibits 1 and C-2, as Mr. Lamb explained to you, starts off with a separation of expenses as between freight and passenger. We have heard much here of the expensiveness of expedited freight service. Expedited

freight service is as distinctive a kind of freight service in its way, to a less degree, as passenger. So if these gentlemen had wished to set up a consistent case, they should have split freight expenses after having taken out passenger expenses on the Commission's formula—they should have made another separation following the same principles as between expedited freight service and the balance of the freight service. That, at least, would have made their study consistent to start out with. I am not going to take up your time to refer to the underlying exhibits numbered 1, 8, and 9 and 2 to 7, because they merely furnish for all of the roads the investment figures that I have used in this example here in Point No. 2. In addition, they give the statistical comparisons that are usually used in railroad work merely to show that from a statistical point of view [fol. 2418] there are many bases of comparison and we should not confine ourselves to one only, especially in view of the fact that this loaded and empty car mile basis is the only one of them all that produces any indication of a confiscatory result.

I get my 6.20 by applying to the investment in road equipment the 71 per cent attributable to freight on the basis of the Commission's formula for separating freight and passenger expenses, and having taken that separation of freight, I apply the factor of 86 which is the factor that would have obtained had the car mile basis been used instead of the Commission's separation. Car miles, after all, are a unit common to both passenger and freight, so if you made your division factors on a car mile basis, you would throw to freight service 86 per cent instead of 71 per cent as obtains on the basis of the Commission's division. Then using those same two factors, I apply that to the taxes and rents and work down to what the Commission and, in fact, the law, calls the net railway operating income, and dividing that net railway operating income, built up on these two bases by the proportionate investment, I produce, on the one hand, on the basis of the Commission's formula a return of 6.20 per cent and on the other hand, on the basis of the car mileage prorate a return of 1.1 per cent.

Point No. 3. Under this point I show that under the divisions prescribed by the Interstate Commerce Commis- [fol. 2419] sion on Florida citrus these northern lines enjoy a greater return per net ton mile in revenue than obtains

on their traffic generally, a statistical indication that the confiscation issue should be carefully approached.

Point No. 4. This does not obtain with respect to the Richmond, Fredericksburg & Potomac Railroad, and I will explain how that comes about, by the variation in length of haul, as one reason, and as another reason that, of course, we don't know whether there has been a proper split between the R., F. & P. and its northern connections with respect to the prescribed divisions.

Point No. 5 is to the effect that there is no comparison of like with like. It is eximatic in rate making, as has been mentioned here today, that ton mile revenue decreases in proportion as distance increases and the reason for that is because the longer haul absorbs a greater proportion of the fixed terminal cost. In the Hodkinson Exhibits, when they set up their revenue column under the prescribed divisions, the revenues in each one of these lines reflects this distance element, because the rate was constructed that way and the divisions of the rate preserve it, but in the corresponding column where they match the expenses they have not scaled their expenses proportionate to distance by first holding out the terminal constant prorate and distri- ing as the distance increased.

[fol. 2420] Point No. 6. This calls attention to the closeness of the comparison on these various statistical measures and states that that is to be looked for whenever we generalize. The logical effect of a generalization is always to approximate. It doesn't mean that the generalization is correct and the very closeness of the generalization indicates to my mind that in an issue of confiscation you can't rely on these statistical generalizations, but must make a proper cost accounting study to determine the issue.

Point No. 7 deals again with the impropriety of lumping things into a general average. There are 101 points of destination on the Pennsylvania Railroad and 27 points of destination on the Baltimore & Ohio Railroad. These destinations, as to terminal facilities and the cost of handling at these 128 terminals naturally vary very greatly and this method that has been followed here gives no proper recognition to that at all. In other words, there is no fair sampling to match against the sampling of the revenues that has been adopted as a guiding principle with respect to

that side of the problem. We should have had the same principle applied with respect to the expenses.

Point No. 8 shows that the result obtained by the Hodkinson calculations is entirely due to two reasons, assigning proportionately as much expense against 4,636,636 [fol. 2421] empties as against 5,427,100 loaded refrigerator car miles; second, pyramiding terminal costs against the more distant and understating them with respect to the near destinations. That, of course, would have been avoided had there been a scaling of expense proportionate to the scaling of revenues.

Point No. 9 shows that the higher percentage of empty refrigerator car movement, varying from 85 percent to 90 percent, is offset by the greater loading of the average freight car on the B. & O. and Pennsylvania, indicating that in progressing from a greater to a lesser generalization the loaded car mile would have been slightly better than the empty and loaded car mile. It would make one additional adjustment and to that extent be a lesser generalization. It would still, of course, not be a determination of cost, merely a statistical generalization.

Point No. 10 again further particularizes by making an out and out computation on the gross ton mile basis, showing there that we still reflect in this lesser generalization more of these divergent factors and, to that extent, produce a better result but one that is still far from adequate.

Point No. 11. I made or had made under my personal direction an analysis of every car moving north to Potomac Yard over the R. F. & P. I mean, of every train as to its consist, showing how many cars were citrus, how many cars [fol. 2422] were other perishables, how many cars were other loads, and how many empties there were in each one of these trains, and then I split those trains into those averaging 50 percent and more perishable and those averaging under 50 percent perishable and underneath that figure I showed the system average of the number of cars to the train and the number of tons to the car. In my draw-off from the train sheets in Potomac Yard, the tonnage on those train sheets was what Mr. Menaugh described here yesterday as the adjusted tonnage. I wish to offer that explanation because the exhibit doesn't insert the word "Adjusted," but those tonnage figures are adjusted tons and

with respect to the system average I, of course, was unable to make any similar adjustment, not knowing the factors that were applied at the various terminals with respect to that adjustment. However, this does not harm the purpose that I had in view in making this analysis, because that statement very clearly shows that in all of these trains, whether expedited trains or what are called drag trains, you have got all kinds of cars, citrus cars, other perishables, other loads and empties. In the same train naturally the only variation as to cost is going to be with respect to the heavier and the light car. The point I want to make is this, your Honor, that if to fill out the tonnage of a perishable [fol. 2423] train we put some dead freight in that train or we put some empties in that train, certainly by the very fact that we do that we run up the cost of handling those loads and those empties by virtue of the added cost of expedited freight service and to the extent that we are not in a hurry to move certain perishables and can carry them in a following dead train, those perishables enjoy the lower cost of the cheaper train service. That is the object of that study.

Point No. 12 makes a comparison between a cost per gross ton mile computed for perishables, citrus specifically, and that figure is a general statistical average, showing in proportion as you get away from the more general figure and begin to particularize the indications depart from the presumption of confiscation.

Point No. 13 I am going to pass up very rapidly because in my opening statement I showed that citrus is not the only expensive freight we have to handle. Other perishables are just as expensive—livestock, less than carload explosives, and we could name any number, so it will not be necessary for me to elaborate further on that point.

Point No. 14 is to the effect that when it comes to determining cost verbal testimony may be helpful as descriptive, but when you translate it into figures you get very surprising results. For example, I heard yesterday a cross-exami- [fol. 2424] nation or direct examination of witness Menaught, taking up some thirty minutes, showing how expensive it is for the Pennsylvania Railroad to get a car through Potomac Yard. As the Southern Railway is a party to cost of operation of Potomac Yard and as I know the cost of operation of that yard, specifically Block B where this service Mr. Menaugh was testifying about takes place, I wish

to state to your Honors that the cost per car during 1929 was 97.34 cents, split up as follows: Operating expenses 89.03 cents, taxes 1.13 cents, equipment rental 2.41 cents, joint facility rents 7.07 cents, showing a gross of 99.64 cents from which we deduct the earnings accruing to the yard for demurrage, et cetera, of 2.30 cents, producing a net cost per car of 97.34 cents. In the operation of that yard, if your Honors please, the expense is divided among the five tenant lines on the basis of the cars in and out, irrespective of the kind of car, whether it is citrus, perishable, dead freight, or empty. On that basis whatever expensive service the Pennsylvania receives is absorbed by the other tenant companies and it is shown by Mr. Menaugh's testimony that more service is rendered the Pennsylvania Railroad than is rendered the other tenant lines in Potomac Yard. Witness Menaugh, in 1931, said that the Pennsylvania required twenty-four distinct classifications, if I recall his figure right, eighteen of which were with respect to citrus. There are in Potomac [fol. 2425] Yard eighteen standard classifications required by the Pennsylvania Railroad to ten required by the Southern Railway, for example. Had the costs that Mr. Menaugh described, and he described them correctly—the only trouble was the Pennsylvania doesn't pay for them—had those expenses been segregated and divided on the citrus basis, that is proportionately as to the number of citrus cars in and out of Potomac yard instead of the general cars handled basis, we would have these comparisons. This refers to the actual citrus season 1928-1929. The R., F. & P. actually paid 27 percent and on a citrus basis would have paid 46 percent. The Southern actually paid 18 percent and on a citrus basis would have paid 4 percent. The Chesapeake & Ohio actually paid 5 percent and on a citrus basis would have paid nothing at all. The Pennsylvania actually paid 35 percent and on a citrus basis would have paid 42 percent. The B. & O actually paid 15 percent and on a citrus basis would have paid only 8 percent. Had the number of switching operations within the yard been even more with the Pennsylvania than the figure I gave, it would have still paid the same percentage that I have given there, and that would all be within the approximate figure of $1.00 per car.

Point No. 15, which is my last point—the purpose of that point is to show that, as his Honor Judge Chesnut re-

[fol. 2426] marked at the outset, the relative cost of maintenance and operation is no proper basis for dividing up your property. Neither is the loaded and empty car mileage a proper basis for dividing up your property. My exhibits B and C take the property wholly owned and used by the Southern Railway, exclusive of land, as determined by the Interstate Commerce Commission as of June 30, 1916. That gives us the property split according to the several construction accounts which the Commission prescribes. I have found the percentage to the total of each one of those accounts, and for the year ending June 30, 1916, I determined the percentage relationship of each of the corresponding maintenance and operating accounts to the total maintenance and operating accounts, and I want to call your attention to a very few comparisons. Grading, for example, represented 21.3 percent of the cost of reproduction new of the property, while roadway maintenance, the corresponding operating expense account, was only 1.83 percent of the total. In the case of the five track accounts, that is, ties, rails, other track material, ballast, and track laying and surfacing, these accounted for 20.93 percent of the property, while the corresponding maintenance accounts represented only 10.5 percent of the total maintenance. Freight cars represented 13.7 percent of the property and their repairs, depreciation, and retirement 11.8 [fol. 2427] percent of the total operating expenses. It is unnecessary for me to go into further detail. I have appreciated how this thing has dragged out, your Honors, and I think my testimony is clear enough to permit me to be brief.

[fol. 2428] Sixth Day.

Baltimore, Maryland, September 22, 1934.

Met pursuant to adjournment.

Present: Same parties as heretofore noted.

J. S. Tassin resumed the stand for further direct examination.

By Mr. Clark:

I have with me the underlying data from which the exhibits that I offered in support of my point No. 11 were

prepared. This is the complete listing of trains into Potomac Yard over the Richmond, Fredericksburg & Potomac from November 9, 1928, to June 30, 1929, and the trains forwarded out over the Pennsylvania Railroad and eastbound only over the Baltimore and Ohio Railroad for the same period. There is also a period of one week in December, 1932. I have the number of cars, the tonnage, the date, the hour of the train, either its arrival or departure, for trains departing; for trains inbound there was no tonnage record kept. The only inbound trains were the R., F. & P. In gathering that data I maintained a force of four men in Potomac Yard for three weeks. During the last week, in order to finish up, I had to put an additional man on. It shows the number of citrus cars in each train, the number [fol. 2429] of other perishables, the number of other loads and the number of empties. That is the data that I used in connection with these exhibits.

I have drawn off a summary of the data I have just described. That is the first statement in connection with the exhibit I have marked A in connection with point 11.

With respect to the Pennsylvania Railroad for that period of 234 days there is an analysis of 3,015 trains, 1,123 of which consisted of fifty per cent or more perishable cars and 1,892 of freight less than fifty per cent perishable. The average cars on the trains for the fifty per cent or more perishables was sixty-one cars; for the other trains sixty-three cars or an average for the entire 3,015 trains of sixty-two cars as compared with a system average of fi-ty-six cars per train. Taking all of the trains out of Potomac Yard I had an average of 62.22 cars as against the system average of 56 cars.

The R., F. & P. inbound I analyzed 2,934 trains, 1,130 of which consisted of fifty per cent or more of perishables and 1,804 under fifty per cent. The first mentioned trains averaged 63.50 cars per train, the balance of them 47.58, all of them 53.71 in comparison with a system average of 50.50. It shows more cars moving out of Potomac Yards for these roads than for the system as a whole except in the case of [fol. 2430] the B. & O. That is on the basis of cars per train.

Turning to Point No. 11 on Exhibit A, there are three pages that can be discussed together. These break down the summary I have just referred to by weeks. I wanted a complete picture of what was happening there during the

entire season. I didn't want hand-picked weeks. I wanted the complete picture and so in these statements here I simply broke down this summary for each of the roads by weeks to show how it spread over the season. It shows the same basic information, the number of trains, the number of citrus cars, other perishables, other loads and empties and it is broken down as between trains consisting of fifty per cent or more perishables and other trains, the first mentioned being on the left of the statement, the last on the right. The first page covers that information for the B. & O. Railroad eastbound out of Potomac Yards. The second page is for Pennsylvania trains outbound and the third page is for R., F. & P. trains inbound. All three of the statements for the three roads are broken up in the same way as I explained in connection with the B. & O. With respect to the Pennsylvania, the second sheet, to the left are listed the trains over fifty per cent perishable and to the right are listed all other trains. The statement is gotten up in two blocks. The increased number of cars fluctuate as each week proceeded, as you see, with a tend- [fol. 2431] ency upward, the second to the last line covering the period June 21, 1929, to June 27, 1929, showing 596 cars of other perishables in that week which is the highest number for this whole period. Just ahead of that is 502 and ahead of that 446 and ahead of that 439. It shows increasing as the season progressed, that is the other perishables increased and the citrus cars were decreasing towards the end of the season. In the underlying data that I first discussed I found many trains of the Pennsylvania leaving Potomac Yards with fewer cars and lighter tonnage than some of these over fifty per cent perishable trains. On that statement I also found the record in detail of the solid trains of perishables for the Pennsylvania leaving Potomac Yards. As Mr. Menaugh testified, there were from one to two trains a day of solid perishables from Potomac Yards to New York. On the next page of this same Exhibit A that situation is more clearly brought out. This is a summation of the same data analyzed so as to show the relative length of the trains. I took all trains of over 100 cars and then from 90 to 100, 80 to 90, and 70 to 80, and so forth. The information that I have mainly devised that exhibit to bring out is shown in the next to the last column on the right-hand side, "Cars per train." It is shown for the three roads on one page.

My testimony has gone almost wholly to a criticism which [fol. 2432] I have summed up in fifteen points of Mr. Hodkinson's exhibit. If my company had made an allegation of confiscation I wouldn't have presented myself in Court without a cost study to support it. If I may use this as an example, I would say that if our company ran from one to two trains of solid perishables a day that would have given me the chance of my life to determine the cost of handling perishables. I would have proceeded in this way: I would have determined, first of all, the costs that were peculiar to that particular traffic and did not involve any other traffic. I would set those costs apart. Then I would take the costs that were common to this traffic and other traffic and I would analyze it according to the best basis to equitably split the expense so as to assign to this particular train its share of the expense. This last sheet, Mr. Clark, to which you have referred shows with respect to all of these trains that when our operating friends were talking about light tonnage trains—I have been working with operating men so long that I understand their language, I know the way their minds work—they were referring specifically to not sufficient citrus cars or perishable cars to fill out a full train that was being run specifically for that class of traffic. It doesn't mean that the train actually ran out light. They filled that train out with other available traffic usually of a [fol. 2433] high class nature so that in the case of all of these trains, whether expedited freight trains or slow freight trains, we find all kinds of cars in them, citrus, other perishables, other loads and empties. There is a practical side of preparing a cost study which you must gain by contact with your operating officials and actually by having the trains ridden and examined by special men for that service. If you are going to establish the cost of anything the first step is to get the physical thing that you want to apply the cost to. In order to get the physical element we have to contact our operating men, see what of those physical elements are already a matter of record in the reports that they keep and to the extent that they do not give us the full physical picture we have to supplement that by personal observation by putting our traveling accountants on the trains and riding them or sending them to yards where they can supplement the picture to the extent that it cannot be fully developed from facts already of record. I have made cost studies in that practical way. I have to have men, for

instance, even in a switching study, go with a typical switch engine and make entries on a record that I prepare for that purpose showing every move and the time consumed in it, and the number of cars handled. When I come to a main line operation I have to have the trains ridden similarly to get the basic data to proceed on. That is a statistical [fol. 2434] analysis and not a cost study, a practical approach instead of a theoretical approach. In view of the fact that the record here shows the greater volume of the citrus traffic moves from Richmond to New York, a distance of 350 or approximately that, that would make the preparation and study from the practical outline I have given easier than if I had it scattered over the gathering and assembling of the cars in Florida and their trains over 800 miles to the gateway at Richmond. You have more figures but less ground to go over.

Mr. Clark: If Your Honors please, I tender in evidence Mr. Tassin's exhibit which I think has been fully described and submit the witness for cross-examination.

My Judge Chesnut:

It would be possible to make the kind of cost study which I have constructively recommended on the point of plaintiff's allegation of confiscation in this case at this late date with respect to '28 and '29 traffic for this reason, that most of the physical facts that are needed are of record. For example, take this detailed analysis of trains. This goes back to 1928-'29. I developed that from records that were made at the time and are still preserved. It is true that certain changes have occurred in operating methods that would, to a certain extent, affect cost, but from the record [fol. 2435] that was made at that time in comparison with a personal observation of what is happening today you can in a reasonable way make the requisite adjustment between the two periods.

Cross-examination.

By Mr. Eshelman:

For the Pennsylvania we made a complete draw off of the trains out of Potomac Yards. We made a complete draw off for the Baltimore & Ohio but I have only included here

the east bound and not those trains which moved over their line toward Harpers Ferry and Pittsburgh and points west. The Pennsylvania trains from Potomac Yard to Washington were not included because that was more in the nature of a switching movement. I do not know whether those crews were paid switching rates or yard rates or line haul rates. All I know was that the movement began in Potomac Yard and ended in Washington, and I was not specifically interested except north of Washington. I did not include any engine running light or two engines classified as a train. I was looking for cars. Unless there were cars in that train I did not take it. That figure was arrived at by dividing the train miles into the car miles as reported by the Pennsylvania to the Interstate Commerce Commission. I am not entirely familiar with whether the various roads [fol. 2436] include in the train miles so reported to the Commission those train miles made by light engines, but I would think so.

When I referred to the one or two perishable trains a day concerning which Mr. Menaugh testified, I was not simply testifying based on what he said previously. If you look at these detailed sheets you will be able to pick one of them out and see the date it ran and the hour it left Potomac Yard. When I said one or two perishable trains I was not referring to those trains of fifty per cent or more perishables. I was referring to trains of one hundred per cent perishables and just stating that my own opinion confirmed what Mr. Menaugh had said that there were one or two trains a day consisting entirely of perishables between Potomac Yard and New York.

These details cover the entire citrus season of 1928-'29. As to the number of engines used in handling these perishables trains, you will notice on the detail to the extreme left there is shown the engine number coupled to the train. In some instances you will see two engines but some of my men may have shown both engines and some may not. I was not trying specifically to develop how many trains were doubleheaded or how many went out with a single locomotive. My exhibit before the Court does not show the amount of power on the trains that went out from Potomac Yard, but from Mr. Menaugh's testimony it is very easy to con- [fol. 2437] struct it. I have made yard studies for the Southern Railway but not as to the movement of citrus traf-

fic as involved in this case, and there was none made before the Commission.

By Mr. Beach:

I advocated riding the trains in order to make the test if necessary. In making the test based on shipments that moved in the 1928-'29 season, I would start with this detailed study that I have submitted to you showing a listing down of every train that ran during that period and showing the cars of which it consisted. I would go to the various train termini and check that train through to destination to see how many cars were in the train at the finish in comparison with the cars in that train at the start. In other words, I would determine the car mileage in that train and then I would determine the cost of running that train. I am referring now to a train that would be determined as typical, or a certain number of trains that would be accepted as sufficient because it would not be necessary to do all of that work with respect to every train. Having determined the typical instance I would ascertain the wages paid the train crews, the fuel consumed by those trains. Those are the principal elements. In the case of some roads you can go further because in the various local offices sometimes they make a record of the supplies furnished, and so forth and so on. But, if I did not find that [fol. 2438] to be a matter of record, I would determine that by observation as of today in sufficient particularity to enable me to form an estimate on a basis of a reasonable judgment, informed judgment. And, having established the cost of that train, then I would ascertain how many trains had passed over that particular section of the line during that particular time, what was the maintenance expense of the road that was actually used by all of these trains, and I would have assessed against the trains I am studying their proportion of these common expenses. And after I had in this way built up a cost against this typical train then I would prorate that cost among the cars in the train. Now, bear in mind that no particular unit can be fairly applied to expenses in their totality. Certain expenses refer to the whole train as a unit, for instance, the expense of dispatching trains, the cost of block signal operations and other similar accounts. That applies to the long train or the short train, the fast train or a slow one. I would put

to one side those expenses that should be divided on a train basis and charge to this particular train its proportion on that basis. Then, with respect to the balance of the train expense, such elements as should be divided upon a gross ton mile basis I would so apportion as among the cars in that train. Now, when I had gotten that train into its terminus, I would ascertain how many cars were handled [fol. 2439] in and out of those various terminals and assess against this train movement its proper proportion of terminal expenses. The principle is simple. It is a lot of work to it and it requires patience. The only direct costs referring to a back period would be those that are found of record and that detail varies with respect to different roads. Some roads keep their affairs in more detail than others. Besides fuel and the wages of the train men, the wages of the train crew is easily arrived at. That is not approximately the same for each train. Wages of crews vary according to the type of the locomotive and the class of the train. Between local trains and through trains there is a difference. As to the vast majority of the expenses that would have to be allocated to those trains. I would not have to make many arbitrary assumptions. I would not call them arbitrary assumptions; they would be informed judgments. I do not agree with the testimony that has been offered here by operating and other witnesses that about one-third of the expenses are directly affected by the weight of the load behind the engine, and I am thoroughly familiar with that. I handled the Federal control settlements for my road. That theory was evolved by a committee of engineers who set up that standard for the United States as a whole with the explicit understanding that particular roads were to adjust it to their particular circumstances. Now, that proportion of one-third to two-thirds, even if it would [fol. 2440] apply to a system as a whole, it would certainly not apply to the portion of dense traffic. On your road, those portions of the system that carry your dense traffic, the percentage chargeable to use might be two-thirds as against one-third charged to time. In other words, you would wear the road out quicker than the weather would rot it or rust it out. On the lesser density areas the situation is just the reverse. That answer does not refer to the line haul and excludes the terminals. The one-third to two-thirds referred to terminals as well as line haul.

That was your physical property apart from your equipment. An out-of-pocket cost study would be made along the same lines, but an out-of-pocket cost study generally leaves out those elements chargeable against time as distinguished from use. Figuring the weather is going to go on anyhow and if you can pick up a little traffic on an out-of-pocket basis, do it. I have put in a very little direct testimony in Fourth Section cases but I have prepared statistical exhibits for use in those cases. Most carriers use a formula developed in the Transcontinental case for the purpose of determining out-of-pocket cost. I myself used it until the Chief Statistician of the Interstate Commerce Commission, Dr. Lorenz, knocked it into a cocked hat just about a year ago. He went more into particulars. You see, they had been satisfied up to that time with these broad generalizations; they were sufficient for the purpose; in fact they were not estimates of costs, they were just statistical indications, [fol. 2441] and furnished the information desired. He went into the matter with more particularity and because of the varying practices of railroads in economizing on the needed maintenance in lean years—we all were forced to do that as a result of the depression, and that, I venture is why Dr. Lorenz made his study because in recent years, under forced economies, to take one year was not representative. Also, he wanted a spread of more than one year and he wanted a more detailed analysis of the various component elements in the expense account. It is quite an elaborate study that he made and since it is out, I follow his method. I know of none better.

By Mr. Beach:

Going back to my suggested cost study, I would explore the situation first. I make a survey of the situation and determine the physical elements before I go into the detail of the costs. I employed four men for three weeks and an additional man for one week in getting up these few sheets of paper that I presented here. That is what I would call a preliminary exploration to determine the extent of the physical elements to start with. I could not give any estimate as to the number of men and the amount of time that would be required to make an adequate study along those lines without an exploration. I will say that I have generally under-estimated it. When I tackled [redacted] job it cost me a lit-

tle bit more than I thought it would but I went through with [fol. 2442] it. When I got through I would not say I had mathematically determined the precise costs but on the basis of informed judgment I made a reasonable approximation, as reasonable as it is possible for human ingenuity to make it. What I told the Court yesterday and repeat here today is that as far as I am concerned all the statistical generalizations are in the same boat when it comes to determining costs. They are statistical generalizations, nothing more nor less.

Net ton mile earnings means something on every kind of freight. I do not say that the net ton mile earnings on a car of citrus fruit would be the same whether there were ten tons in the car or thirty tons in the car provided the rate was the same. It would vary according to the loading and the rate. You divide in one case by thirty and in the other by ten. You multiply your distance by your tons.

By Mr. Eshelman:

Assuming I am studying the cost of handling traffic and am going to make some detailed cost studies, I would get first all the actual expenses that I could find that directly appertained to that traffic alone. Then I would go through the other expenses that might appertain in part to the particular traffic and in part to other traffic and endeavor to set aside out of those expenses the amounts which I calculated should be allocated to that particular traffic. As between [fol. 2443] those which I would regard as actual and those which would have to be determined through the use of some judgment factor, about eighty-five per cent of the whole would be actual, roughly. That has been about my experience. I am not considering in that case interest on investments, taxes, joint facilities, rents, or anything of that sort but I will say considering the full amount of operating expenses. I was not considering a fair return on investment. Nobody has devised a means of apportioning taxes, rentals and return on investment. It would run over twenty per cent. I would say it would run easily over fifty per cent.

By Judge Soper:

When we have a divisions case before the Commission one of the elements which enter into the proposition is the

cost to the carrier on either side of the case. No one on either side submitted such a cost analysis or study as I have suggested as the only one that can be relied upon until the Hodkinson computations were filed before the Commission in the petition for re-hearing. Up to the time that the Commission had rendered its decision, no carrier on either side offered the Commission any such precise information as I say I could get.

[fol. 2444] Redirect examination.

By Mr. Clark:

The cost study of Professor Cunningham submitted by the northern lines before the Interstate Commerce Commission was a statistical computation. I rebutted it in the General Divisions Case. The percentages chargeable to use and weather of one-third and two-thirds, respectively, applied to maintenance of way structures. It applies to both equipment and road but not in the same proportions. There are different percentages used in the case of equipment. It is about fair to say that about fifty cents out of the dollar goes for wages on the Southern Railway Company.

R. J. Doss, a witness on behalf of the defendants, having been duly sworn, testified as follows:

Examined by Mr. Gwathmey:

I am the Assistant Freight Traffic Manager of the Atlantic Coast Line Railroad with headquarters at Wilmington, North Carolina. I was a witness in the case before the Commission and described my railroad experience and qualifications. I have, on behalf of my company, for a number of years, been directly in charge of the matter of [fol. 2445] such negotiations as were had with the eastern roads in connection with the divisions of the rates on citrus fruit and other matters which led up to the filing of the complaint before the Commission. I have been all over that situation personally.

The so-called Florida Arbitraries were first authorized by the Interstate Commerce Commission in the southern class rate investigation and became effective for the first

time in connection with the class rates on January 15, 1928, which was prior to the Commission's decision in the citrus fruit rate case.

By Judge Soper:

We never had arbitraries before that on classes or commodities. Generally speaking, the rates on classes or commodities, including fruits and vegetables from Florida were made on the basis of so-called basing or gathering charges up to Jacksonville, but with the adoption by the Commission of the new scheme of making class rates, when they came to make the present rates on citrus fruit they related commodity rates on citrus fruit to the class rates. Now that had the effect of adding to what would have been otherwise the rate about 6 cents per 100 pounds. Now the average haul up to Jacksonville is around 200 miles, so that you can see that very small proportion was not included with any idea of covering the entire revenue south of Jacksonville. It was fixed with the idea that it would ac-[fol. 2446] crue solely to the Florida lines, but it was not to be the only compensation of the Florida lines.

By Judge Chesnut:

They get their proportion of the joint through rate south of Jacksonville. I assume that the so-called arbitrary then fixed was not, in conjunction with the proportion of the through mileage rate, compensatory for the service to be performed up to Jacksonville, for the reason that the Commission in the class rate case, indicated that the addition of the so-called Florida arbitrary was compensatory to South Florida carriers for the low density of traffic and the fact that they were not physically located so as to handle any overhead traffic. So when they fixed the class rates to and from South Florida these so-called arbitraries were added above the normal scale that applied elsewhere in the South, to in a way compensate the South Florida carriers for those disabilities I have just mentioned.

By Judge Way:

My contention is that the arbitraries were allowed to make up for low density of traffic rather than for extra cost of assembling traffic.

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By Mr. Gwathmey:

I prepared the traffic studies which have been referred to as a traffic test for the season 1928-1929 and which have been used in this case by both parties, as well as the Commis-
[fol. 2447] sion.

I have prepared an exhibit which will clearly indicate to the Court just what was the effect in dollars and cents of the change in the divisions as ordered by the Commission from what they were prior to November 9, 1928. Let me first say that the traffic test which I made, covering movement by the Virginia and Maryland gateways to the East, including New England, covered a total of 29,221 cars. The test showed that the effect of the revision of the through rates which had been made effective November 9, 1928, was to reduce the total carrier revenue on the cars in question $171,558.85, or $5.87 per car. This represented a reduction of approximately 1.34 per cent. The official territory lines, having in their hands the distribution of the revenue, whether the freight charges were collected by them or prepaid at origin, retained $381,823.16, or $13.07 per car more out of the reduced rates than they would have gotten out of the former rates.

They retained $381,823.16 or $13.07 per car more out of the reduced rates than they would have gotten out of the former rates had the rate not been changed and had the division of the former rates been continued.

By Judge Chesnut:

I don't think those figures appear on the exhibit. I am talking about the 29,221 cars which went to trunk line terri-
[fol. 2448] tory. The figure per car which the northern roads received for a typical haul prior to this 1929 reduction varied as to destinations.

By Judge Soper:

There was an increase of $13.00 per car in the northern lines' proportion. I haven't the figures here as to how much per car they got before and how much afterwards. They all appear from these exhibits which I filed. The percentage of increase for northern lines was about fourteen per cent. There was no case that did not get as much as

12½ per cent but to Boston and other points they took greatly in excess of 12½ per cent.

By Judge Chesnut:

Prior to 1928 the lines north of Richmond received to New York a proportion of 18 cents per box which would have been twenty cents per 100 pounds on a 90-pound box, and that is the figure which I used in arriving at these figures where the cars moved to New York. Prior to the 1928 reduction the northern roads got $64.80 on a car containing 360 boxes or 32,400 pounds from Richmond to New York. In 1928 the Commission reduced the rates on an average of one cent per 100 pounds to New York, about one per cent. After the reduction the northern roads from Richmond to New York took 22½ cents per 100 pounds which, using the same weight as I used a moment ago, gave them $72.90. [fol. 2449] That was done because they simply had the money and kept it. We didn't get very many reasons out of them. The principal reason they gave was that they were not satisfied with the proportions which they had been receiving, and they arbitrarily took their old proportions and converted them to the 100-pound basis, using an estimated weight of 80 pounds per box instead of 90 pounds per box which was the prevailing average weight and which the Commission fixed in the rate case.

By Judge Soper:

Q. You refer to one thing, that is, prior to 1928 the rate was based on so much per box which the northern roads declared was eighty pounds, represented eighty pounds. When the rate changed from so much per box to so much per hundred pounds, assuming that the box contained eighty pounds they seemed to have increased their share when applying the cents per pound rate twenty-five per cent. That seems to be a statement on page 734. Would it be out of place here for you to explain how that comes about? I don't mean to say the justice of the thing but the mathematics of the thing.

A. Your Honor, I think it is twelve and one-half per cent difference. The former rates were, as you said, published in cents per box of eighty pounds. The tariff on the division sheets showed that way but as far back as 1908 when

the Commission had occasion to review the rates on citrus from Florida they found at that time that the average [fol. 2450] weight was ninety pounds. When the rates were changed to a per hundred pound basis in 1928 the northern lines changed their proportion which from Richmond to New York was eighteen cents. They used eighty pounds per box which made the 100 pounds specific which they used 22½ cents per hundred pounds.

I mean the mathematical process is to divide eighteen by eight. That will give you 22½. They got eighteen cents per box before the 1928 decision. The 22½ cents per box is the same rate as eighteen cents per 80-pound box. They claim 22½ cents per hundred. Our position was if they had intended to only retain out of these newly reduced rates the same revenue as they obtained out of the former rates they should have taken the eighteen cents per box rate and converted it to a per hundred pound basis, using the actual weight of ninety pounds which would have made their new per hundred pound proportion twenty cents. The difference between the two, twenty as to twenty-two and a half, is twelve and one half per cent. Having followed that basis throughout the entire territory, they obtained in all instances a twelve and one half per cent increase over what they received out of the former rates and to Boston they arbitrarily took even more than that. The C. F. A. lines converted their former per box specifics using ninety pounds per box. That was the same thing that had been done before. They made the correct calculation. They should have [fol. 2451] reduced rather than maintained the same level as they had before. Our position before the Commission was that the rate should be divided substantially on a revenue basis, that is each line standing its pro rate share of the reduction and participating in its pro rata share of the increase, if there was any.

By Mr. Gwathmey:

That action of the eastern lines, including the New England lines, was the precise reason for the complaint which the southern lines filed before the Commission, not including therein the C. F. A. lines, and it was also the reason why the southern carriers asked only for a retroactive application of the division in respect to the east. We simply couldn't let all of that money go by.

The through rate to the east on the average was reduced to $5.87, a reduction of 1.64 per cent. The eastern roads retained $13.07 per car on the average more out of the reduced rates than they received out of the former rates and that forced not only the entire reduction made in the rates on the southern lines but brought about a total reduction in our revenues on the average of $18.94 per car. Under the divisions fixed by the Commission, the southern carriers were required to stand all of the reduction in through rates from Florida to the east. After we received the Commission's decision in the Divisions case we refigured the [fol. 2452] charges on 29,193 of these cars that were included in the revenue test and we found that the revenue of the eastern roads over what they had received prior to November 9, 1928, had been increased $62,835.90 (Exhibit 1). The effect of the Commission's decision in the Citrus case was to increase the proportions of the Official Territory lines approximately $2.15 per car over what they were receiving prior to November 9, 1928, and to require the southern lines to assume the entire reduction in the through rates or approximately $5.87 per car, making the total loss to the southern lines of approximately $8.02 per car. That represents the net increase which the northern lines received on shipments to all of the destinations shown on this exhibit. That being the amount they would have received under the Commission's order.

By Judge Soper:

That is a net increase. If you will notice on sheet one of the exhibit are shown the cars which moved by Richmond and on sheet two those that the Southern Railway brought into Potomac Yards. The first column of figures in Exhibit 1 headed "Under November 8, 1928, Rates and Divisions," shows the proportions which would have accrued to the northern lines on these shipments moving to each of these points under the rates and divisions as of November 8, 1928. The effective date of the reduction was November 9, 1928. [fol. 2453] In the second column of figures are shown the revenues which accrued to the northern lines out of the present rates and on the basis prescribed by the Commission in the citrus divisions case. The next two columns show respectively the increases or reductions as they happen. To New York the increase in the proportion of the northern

lines was very substantial. The total both by Richmond and by Potomac Yard was something in excess of $102,000. Of course, there were some other points—Pittsburgh, for example, where the reductions were right substantial. In this calculation it is not necessary to assume that a box weighs ninety pounds because to obtain the divisions on November 8, 1928, the per box specific was applied to the number of boxes in the car without any reference to the weight.

By Judge Chesnut:

The effect of the citrus fruit divisional order of the Commission was to increase and not decrease the proportions for joint through rates received by the northern carriers as compared with the divisions that had been customarily made between them prior to November 9, 1928, in the aggregate.

By Mr. Gwathmey:

I arrived at my figure of $102,000 for increase on shipments to New York by combining the $95,132.58 on the first sheet which moved via the Richmond gateway with the [fol. 2454] $7,078.68 shown on the second sheet which moved via the Potomac Yard.

By Judge Soper:

Page two shows that the aggregate increase of the northern lines was $62,835. That includes the $54,337 on page one.

By Judge Way:

The Commission didn't undertake to tell the two sets of carriers how they should divide the joint rate; just simply prescribed changes in the rates which in the aggregate amounted to a reduction of 1.64 per cent.

By Judge Chesnut:

I can tell you what I understand is the reason that the Commission gave for that reduction. The railroads didn't think there was any reason for it. The Commission mentioned some three or four principal elements in its report. One was the increase in the volume of movement of citrus fruit since the Commission had fixed the prior rates and that was back in 1908 or '10. They also referred to the

increased loading per car. The former rates were subject to a minimum of 300 boxes, whereas the loading per car had increased up to around 360 boxes. In prescribing these reduced rates it made them subject to a minimum of 360 boxes. The Commission also referred to what it considered to be a change in the gathering service. Of course, on that point the Florida lines are not in agreement with the Commission because we really feel that our gathering [fol. 2455] service, if anything, is more expensive today than it was twenty or thirty years ago but the position of the southern lines when they came to discuss the divisions with our northern friends was, with the single exception of this change in the gathering service, the Commission had not mentioned anything in the way of a change in conditions which had not accrued in the same proportion to the northern lines that they had to the southern lines and that consequently the reduction should have been borne on a pro rata basis. We offered to do that. The Commission's report of November 9, 1928, dealt only with the rates. They made no finding with respect to the division of the through rates. By "Present Rates" in the second column I mean the rates which were prescribed effective November 9, 1928, and which, with very slight routine charges, are in effect today and by "Prescribed divisions" I mean the basis of divisions prescribed by the Interstate Commerce Commission in the Citrus Fruit Divisions case, Docket 24069. That is the decision you are now considering. These figures, however, do not know the basis of settlement which the northern lines observed from the period of November 9, 1928, down to June 1, 1934, when the basis of divisions prescribed by the Interstate Commerce Commission became effective. This covers all but twenty-eight cars which moved during the test period from November 9, 1928, to June 30, 1929. Those twenty-eight cars moved via Hagerstown and they were not included in this [fol. 2456] exhibit. The Commission has not attempted to go back of June 30, 1929. This is just what would have happened had these divisions which have now been prescribed as effective prior to June 30, 1929, been applied to that period. This is the only way by which we could fully illustrate the effect of the two bases because we had the data as to this movement readily available. That test period has been used throughout the case.

By Mr. Gwathmey:

Exhibit 2 is a statement of two pages showing from Lake Wales, Florida, which is a representative Florida shipping point, the rates and divisions in effect prior to November 9, 1928, compared with the present rates and divisions therof as prescribed by the Commission in Docket 24069, to represent destinations in the case. These rates as of November 9, 1928, are the former per box rates and divisions converted to per hundred pound basis for the purpose of comparison, using estimated weight of ninety pounds per box. That shows, for example, that the old rate from Lake Wales to New York was the equivalent of 106.7 cents per hundred pounds, allowing beyond Richmond twenty cents. The present rate is 106 cents and the divisions fixed by the Commission in the Citrus Divisions case allow beyond Richmond twenty-three cents.

[fol. 2457] By Judge Soper:

The Commission's decision would have increased the New York northern lines' share by three cents and reduced the other by three. "Beyond" means southern roads up to Richmond and northern roads beyond Richmond.

By Judge Chesnut:

Q. What was the basis or reason, if you know or can point out to us, why the Commission slightly increased the northern lines' share of the joint rate by its divisional order in the Citrus Fruit case to New York, for illustration, and very materially diminished it for Altoona. For instance, taking comparative figures, the prior percentage division for New York, prior to November 8, 1928, was twenty cents. Under the divisional order in question it becomes twenty-three cents. Now then, when we take Altoona we find that it was prior to the divisional order 32.8 cents and now under the present order it is only twenty-four cents, and there is a similar slight decrease with regard to Buffalo as a destination point and considerable increase as to Harrisburg, the former rate being 23.3 and at present 18.2, and to Pittsburgh formerly 32.8, now 25, Scranton 33.9, now 26; Syracuse formerly 35.6, now 31.6. Of course, I appreciate that there may be something in the differences reflected by the fact that New York is a

seaport but what bearing has that on this problem?

[fol. 2458] A. That situation to which you have called attention results very largely from the fact that prior to November 9, 1928, under the old per box specifics, as we call them, the specifics were not related to each other with any attention at all to the distance because you will see from my Exhibit 2 that to Harrisburg, for example, the proportion was 23.3 to November 8, 1928, while to Philadelphia it was 16.7. I haven't the distances before me but my recollection is Harrisburg is nearer Potomac Yard than is Philadelphia. The divisions which the Commission prescribed are arrived at in such way that they are controlled and reflect to some extent the distances. In fact, the factors of both northern and southern lines are determined by the distances to and beyond the gateways. Therefore, under the basis prescribed by the Commission you will find that for equal hauls north of the gateway or south of the gateway, for that matter, that the proportions will be the same and, as you suggest, Your Honor, the fact that New York is a port city probably did have something to do with the lower proportion in effect to that point. It didn't have all to do with it because New York had long been the principal and largest individual receiving point of Florida citrus fruit.

Q. Is it quite correct to say that in principle the effect of the divisional order now in question resulted in an increase to the northern roads over their proportions which [fol. 2459] had prevailed prior to the Florida rate case reduction? Isn't the real principle of the present divisional order a substantial reduction in principle applicable to the northern roads because of their proportion of the joint rates but it just so happens that because a very large percentage of the quantity of actual shipments which you have studied during this period went to New York and the New York rate was slightly increased in favor of the northern roads but the result in the aggregate is an increase absolutely for this particular period for these particular shipments going to the northern lines?

A. Yes, that is true. The effect of the Commission's decision in the Citrus case was to increase divisions to individual points and reduce divisions to individual points but the net result of the decision as a whole and as illustrated

by my Exhibit No. 1, was to increase the proportions of the northern lines in the aggregate.

That is by reason of the fact that the Pennsylvania got a substantial increase but taking all the other northern roads that are involved in this case, practically all of them got substantial decreases in the interior where a road does not serve New York.

By Judge Soper:

This study was based on substantially all the cars during the period that moved via Richmond and Potomac Yard. [fol. 2460] May I call attention to the fact that all these inconsistencies in the divisions merely reflected the inconsistencies in the old rate adjustment. On my Exhibit 2 it will be seen that the former rate to Altoona was 116.7 and it was reduced to 105; New York 106.7 was continued at 106. It was considered inevitable that with the change i the scheme of rates so it reflected distance there should a corresponding change in the divisions so that they wou be made to conform more to distance. As to whether it is a fact that any increase in citrus fruit rates is more or less an empty honor under existing conditions on account of water competition, I would say it is a very serious situation.

By Mr. Gwathmey:

My Exhibit No. 3 shows the number of cars of fruits and vegetables, berries and melons handled by the Atlantic Coast Line, Seaboard Air Line Railway and Southern Railway and delivered to the Baltimore and Ohio and the Pennsylvania Railroad at Potomac Yard during the period January 1, 1933, to December 31, 1933. This Exhibit was filed as Exhibit No. 1313 in Docket 24160, the General Divisions case subsequent to the hearings in Docket 24069, the Citrus Fruit Divisions case. This exhibit covers a total of 67,761 cars which were handled during 1933. It is a daily average of 186.15 cars. There was not a day during the first seven months of 1933 that there was not delivered to the B. & O. [fol. 2461] and Pennsylvania at Potomac Yards more than 135 cars except on January 3rd when the delivery was only 110 cars. The daily deliveries during a large part of that [fol. 2462] period were over 200 cars and it reached as high as 501 cars on July 23rd.

By Judge Chesnut:

This is the first statistical data you have in the case for anything other than the '28-'29 period. When we came to put in our testimony in the General Divisions case which was a dispute between the northern and southern lines with respect to divisions on all commodities, we wanted to show the volume of this perishable movement by Potomac Yards and this Exhibit was filed for the year for which we could get it most conveniently and that was 1933. This covers not only citrus fruit but covers vegetables, melons and berries.

By Mr. Gwathmey:

Q. Going back to the question I asked perhaps out of turn awhile ago, please state whether or not it is a fact that the effect of the Commission's decision in actual operations is to evaluate a mile of transportation in the South as the equivalent of as much as 1.77 miles of transportation service in the North. What are the facts about that as applied to the actual movement of the business?

A. The revenue test of the 1928-1929 movement which I filed in the Citrus Fruit Divisions case and is referred to by the Commission in its report of July 3, 1933, 194 I. C. C. at page 742, the weighted average hauls of Florida citrus fruit traffic to New England and Trunk Line territories [fol. 2463] were 372 miles in the North and 853 miles in the South. The prescribed factors are 63 and 200 respectively, producing twenty-five per cent North and seventy-five per cent South. Taking, for the purpose of illustration, a rate of one dollar per hundred pounds and omitting any consideration of the Florida arbitrary, these divisions produce for the northern lines twenty-five cents equal to $5 per ton or 13.44 mills per ton mile for the haul of 372 miles and for the southern lines a division of seventy-five cents is equal to $15 per ton or 17.58 mills per ton mile for a haul of 853 miles. The latter is equivalent to 1.308 miles south for one mile north or, stated differently, the northern lines receive under the prescribed basis seventy-six one hundredths of one mile for each mile of actual transportation service. I think the *the* figure of 1.308 is much more orrect than the figure of 1.77 referred to in the petition if you take the average of all the hauls north and south respectively.

Exhibit No. 4 is a statement showing percentages prescribed by the Interstate Commerce Commission in Docket 24069 from Orlando, Florida, to representative destinations in official territory, with class rate divisions to and beyond interterritorial gateways or equivalent mileages necessary to yield the prescribed percentage. Take for example, from Orlando to New York the prescribed percentages are 77 south and 23 north. These percentages are determined by the use of the class rate mileages. That means the [fol. 2464] class rate formula which provided that the distances will be computed by the shortest route over which carload traffic can move without transfer of lading. These are the mileages which the Commission's decision in the Citrus Fruit Divisions case require that the carriers use in determining the factors which are in turn to be used in determining the percentages. Now, taking the southern lines' mileage of 774 miles to Richmond it would be necessary to deflate the northern lines' actual mileage of 346 down to 231 in order to yield percentages on a mileage basis which would be those prescribed, 77 to Richmond and 23 north; and similarly using 346 miles north it would be necessary to inflate the southern lines' mileage up to 1,158 in order to yield the prescribed percentages of 77 and 33. Now, while I admit that averages of percentages do not mean much, it is an indication that taking the ten destinations on this statement there is an average deflation in the northern lines' mileage of 4.5 per cent while there is an average inflation, if you fix it the other way, in the southern lines' mileage of 17.37 per cent.

By Judge Chesnut:

In fixing the joint through rates to any particular destination I have to calculate by the shortest possible railroad line and that so calculated the proportionate percentage to Richmond from Florida is 77 and to New York from Rich- [fol. 2465] mond is 23 per cent. I am applying the 774 miles to Richmond as the southern lines' factor and I am endeavoring to show how much short of the actual class rate mileage north of Richmond the percentages prescribed by the Commission would reflect. In other words, if you use as the southern lines' factor 774 you would have to use for the northern lines a factor of 231 in order to produce the percentages of 77 to Richmond and 23 beyond.

We do not actually carry the freight 1,158 miles to obtain compensation for carrying it 774 miles. It is not exactly that way. What I am trying to do is show the equivalent mile for mile as reflected by these percentages. There is no connection between the last four columns in the exhibit.

By Mr. Beach:

If we were dividing this traffic on the mileage pro-rate, that is in strict accordance with the number of miles in the short haul, and we used the actual haul of 346 north, the mileage that we would use south in order to produce a mileage pro-rate from Orlando to Richmond would be 1,158 miles. To produce the mileage pro-rate there is an inflation of the southern mileage of something less than 400 miles.

Mr. Beach: The mileage pro-rate means if I have a haul of 600 miles, 400 south and 200 north, if I divide it on the mileage pro-rate, two thirds of the rate would go south [fol. 2466] and one third north.

Witness: If they use 231 as a factor for the northern mileage they would use the actual figure south.

Judge Chesnut: Are we told by this witness that, as a matter of fact, to earn for 774 miles the southern roads actually, physically, literally carry the freight 1,158 miles?

Mr. Beach: No, sir. They carry it 774 miles but get credit for carrying it 1,158 miles. They are using short line miles both north and south.

By Mr. Gwathmey:

My Exhibit No. 5 consists of three sheets and is an analysis of movement beyond the Potomac Yard of the 28,625 cars of citrus fruit originating in Florida during the period from November 9, 1928 to June 30, 1929, inclusive, and delivered to the Pennsylvania Railroad or the Baltimore and Ohio Railroad at that point, the number of cars involving only the single line haul beyond Potomac Yard being shown, as are also those involving separately two-line hauls, three-line hauls, four-line hauls, and so forth. Taking the first item on that exhibit as illustrative, it appears that of the entire movement which the Pennsylvania Railroad handled north of Potomac Yard those delivered at destinations over its own lines were 18,430 cars representing 76.4 per cent of its total movement.

[fol. 2467] Judge Soper: Does it show the cost of the single line haul?

Mr. Gwathmey: No, sir; this is merely intended for the information of the court to give the exact figures where there are 1, 2 or more participating roads north of Potomac Yard.

Witness: In the hearing before the Commission I filed an exhibit, No. 43, showing the manner in which the rates on citrus fruit moving from California to the east are divided as between the various participating roads.

Q. Have you prepared as your next exhibit in this case, which will be No. 6, a statement which will show how the Pennsylvania, for example, voluntarily accepts certain revenue for its haul on California citrus fruit and in comparison therewith show what the Pennsylvania receives for a haul of equal length on the Florida citrus fruit under the divisions which the Commission fixed?

Judge Soper: Why do you use the word "voluntarily"?

Mr. Gwathmey: Because these divisions on the California citrus fruit were fixed by the participating roads themselves and have never been prescribed or fixed by the Interstate Commerce Commission.

Judge Soper: The divisions have not, but the total rate has, I suppose.

Mr. Gwathmey: Yes, but the matter of dividing is a [fol. 2468] voluntary arrangement between these roads.

By Mr. Beach:

The transcontinental citrus rates have not been fixed by the Commission but are voluntary rates; the through rates are voluntary. The special temporary rate now in effect is $1.43. The normal rate is $1.55 per hundred pounds.

By Judge Soper:

The rate from Lake Wales, which is the normal shipping point, is $1.06. That is the normal rate. We have had some temporary reduced rates in effect from Florida to New York and beyond to meet truck and boat competition.

By Judge Way:

The rate from California to practically all points east of the Rocky Mountains in $1.43 which is a temporary rate

and as contrasted with that our rate from Lake Wales last season to New York was 94 cents.

By Judge Soper:

The rate prescribed by the Commission as to which the divisions are in controversy was $1.06 but we did last season try out some rates which were usually twelve cents per hundred pounds less than the normal rate.

They ship citrus practically every month in the year from California. Florida fruit moves beginning in volume in December and extending up to about June. Florida producers, [fol. 2469] practically without exception in the eastern part of the United States, have a lower rate per hundred pounds than in effect from California. Of course, the California fruit moves for a much greater distance and relatively it might be said that the California rate is lower; at least, it pays a lower return per mile than the Florida fruit. That is due to the extremely long hauls from California and the relatively shorter haul from Florda. Florida's competition with California during the period when Florida is shipping is more keenly felt in the central states than it is in the eastern states. There is a greater relative volume of California fruit moving to points like Chicago than to points like New York.

By Judge Chesnut:

There is quite a variation in the number of oranges in a box of one hundred pounds. They run up around one hundred, I would say, or maybe more. The normal rates from California are $1.55 and from Lake Wales to New York $1.06. If there were one hundred oranges in a box of one hundred pounds, there would be a difference of about one half cent for each article for freight, but oridinarily there are more than one hundred oranges in a box. Of course, the Florida fruit having much more juice is a much heavier commodity than the California fruit.

[fol. 2470] By Mr. Gwathmey:

I have explained what I call the normal rate from California to the east is $1.55 per one hundred pounds. The temporary rate is the rate that the roads serving the west have put in for competing reasons.

Exhibit 6, page 2, shows first what the division is from Richmond to Boston for a distance of 581 miles on the Florida citrus fruit. To explain what that division is and how that compares with the division that the Pennsylvania Railroad gets for an equal haul or an approximately equal haul of 616 miles on traffic moving from California via St. Louis, these divisions from Florida are of the current rates from Lake Wales and on sheet 2 of the Exhibit 6 will be seen the proportion accruing north of Richmond to Boston on shipments moving from Lake Wales to Boston. The distance from Richmond to Boston is 581 miles and the proportion prescribed by the Commission in the citrus divisions case allows north of Richmond 33.3 cents per hundred pounds. Now, on a 36,000 pound car, which is the unit from California, the earnings north of Richmond would be $119.88. On California fruit moving via East St. Louis to Boston the Pennsylvania Railroad would haul it from East St. Louis to Pittsburgh 616 miles and out of the normal rate of $1.55 per hundred pounds would receive for that haul 20.2 cents per hundred pounds. And out of the temporary [fol. 2471] rate of $1.43 per hundred pounds they would receive 18.6 per hundred pounds, which would yield respectively $72.72 and $66.96 per car. I am reading from the last line of the exhibit, figures on the right-hand side. In other words, the Pennsylvania and the New York, New Haven & Hartford and the R., F. & P. together on the Florida shipments get $119.88 for a car of 36,000 pounds and $107.89 for a car of 32,400 pounds, and those are the divisions which in this case are alleged to be confiscatory. Nevertheless, for the 616 mile haul on California citrus fruit the Pennsylvania Raliroad is voluntarily accepting on a 36,000 pound car $72.72 under the normal rate and $66.96 under this temporary rate.

The New Haven performs exactly the same haul over the same line of railroad east of New York regardless of whether the traffic comes from California or whether it comes from Florida. The comparison of the New Haven's earnings from Harlem River to Boston, as shown on the first page of Exhibit 6 in the third block, the fifth line from the top, showing the earnings from Harlem River to Boston on Florida fruit moving to Boston, the proportion is 18.6 cents per hundred pounds, which yields on a 36,000 pounds car $66.96, and on a minimum car 32,400 pounds $60.26.

That is what the New Haven gets on Florida fruit on the basis on which they are dividing the rates prescribed by the Commission.

The next line shows from Harlem River to Boston on [fol. 2472] California fruit. The proportions are, out of the normal rate of $1.55 per hundred pounds, 14.2 cents and out of the temporary rate of $1.43 per hundred pounds 13.3 cents per hundred pounds, yielding respectively for the 36,000 pound car $51.12 as compared with $66.96 from Florida, and out of the reduced rate $47.88 per car as compared with $66.96 from Florida.

It is a fact that, regardless of the circumstance that they are alleging before the Commission that their divisions under these Florida rates on oranges are confiscatory and pay less than out-of-pocket costs and taxes, eastern railroads have been and are vigorously and actively soliciting the movement of this traffic for their respective lines. California fruit to some extent moves in car-load lots in very large volume to Boston, New York, and all eastern points. My Exhibit No. 7 is a partial list of representatives of the official classification territory lines who are now actively engaged in soliciting the movement of citrus fruit from Florida to destinations in official classification territory. This, of course, is a partial list because it only undertakes to show the particular representatives of those lines who are located either in Florida or near Florida or who spend considerable of their time soliciting the shipments in Florida. Of course, the representatives of those lines who are located at the [fol. 2473] destination points are likewise actively soliciting this business from the Receivers, and my exhibit is just a list of certain representatives of the railroads that I know are actively engaged in soliciting this business. I come directly in contact with those men at various times. I spend quite a good deal of my time in Florida.

In the course of his testimony, Mr. Hodkinson explained that in computing the alleged revenues accruing to the southern roads he had used the mileage for the so-called shortest route and not via the route of the actual movement of the traffic. Because of the greater distances in the southern territory than in official territory the use of the absolute short line rather than the distance via the route over which the shipments are actually handled, tends to more greatly deflate the mileage in southern territory than it does in

northern territory. And, of course, in applying the average cost per car, determined for example under Mr. Hodkinson's study of the Atlantic Coast Line, a fairer statement of the cost would be to multiply the average cost by the distances over which the Atlantic Coast Line handles it. For example, in one of his exhibits showing Coast Line costs he uses from Crescent City, Florida, which is a local station on the Coast Line, to Richmond 703 miles while the distance via the Coast Line, and which is the only way we have for handling it, is 751 miles. From Haines City, Florida, he [fol. 2474] uses 813 miles to Richmond while the actual distance via the Coast Line is 817 miles. Haines City likewise being a local station on the Coast Line. And in his exhibit C-4 he uses the short line distance to Jessup, Georgia and Montgomery, Alabama in applying his average cost per car per mile for the Coast Line, whereas the traffic is not handled via the routes over which those short line distances are computed from a large part of the territory in south Florida served by the Coast Line. When shipments are billed direct to Cincinnati, for example, under a traffic agreement which we have with the Southern Railway, the deliveries are made to that line at Jacksonville, but it is the practice in marketing both fruits and vegetables from Florida, particularly the western traffic, to bill it first to Waycross, Georgia, which is our principal diversion point. When the car has gotten to Waycross we have an arrangement with the Southern Railway by which that traffic is delivered to the Southern Railway at Jessup, and not carried back to Jacksonville which would have been the junction point had the shipment been billed from origin to Cincinnati. Likewise, on traffic which we forward to the west via Montgomery in connection with the Louisville & Nashville Railroad or the Mobile & Ohio Railroad, in nearly every instance goes to Waycross and is there diverted. Consequently, the distance in order to reflect the true situation should in each [fol. 2475] instance be figured via Waycross and it makes a right substantial difference because, for example, Mr. Hodkinson shows from Haines City to Montgomery 479 miles whereas via the route over which we would actually handle it the distance would be 575 miles. I will not take up time to refer to all of the errors of this kind, because they exist in practically all of his figures. It means that to that extent the estimate of revenues accruing to the southern railroads is too large.

Judge Chesnut: He figures the cost too small?

Mr. Gwathmey: Yes, sir.

Judge Chesnut: On the other hand, in considering proper divisions between northern roads as a class and southern roads as a class, is not it perfectly fair to assume that the southern roads as a class would handle the service in the most economical way and via the shortest distance? In other words, if there is a shorter distance from Lake Wales, Florida, to Richmond than by the Atlantic Coast Line and if that shorter way is partly over the Atlantic Coast Line, partly over the Seaboard and partly over some other railroad, is not the total service performed by southern roads as a group to be limited to the short line?

Witness: Both the rates and the divisions under the Commission's decision in the Citrus Fruit rate case and in the Citrus Divisions case are determined by the absolute short line distance. I do not mean the air line distance; I [fol. 2476] mean the shortest route over which carload traffic can move without transferring the lading, where the car can be switched, where there is physical connection. That does not by any means purport to represent the cheapest and most economical route. It just gets down to a fixed basis or method of determining or computing the distance. Now, when you come from Florida to Richmond, you no doubt find that you come up the Coast Line a little ways and switch over to the Seaboard and switch back again. We use in determining the rate, as well as the divisions the distance that is figured via the absolute short route but we do not necessarily, or hardly ever, use those particular routes for transporting the business. Obviously, with such slight differences in the distances from Florida to Richmond via the Coast Line as contrasted with the distance via the Coast Line as contrasted with the distance via the Seaboard, when the Coast Line receives a car in Florida it can haul it to Richmond cheaper over its own road than it could to have one or more interchanges with the Seaboard, and likewise the Seaboard can handle it cheaper over its own line than if required to make interchanges at several places up and down the road with the Coast Line. The Coast Line does have an arrangement for interchanging this traffic with the Southern Railway. In traffic to Richmond from a certain

part of our Florida Territory, the deliveries to Southern Railway are made at Jacksonville. From the western part [fol. 2477] of the state the deliveries are made to the Southern Railway at Savannah, Georgia. The point I am making is that Mr. Hodkinson in determining our expenses, Coast Line expenses, has used that absolute short line and applied our average car mile expense as he arrived at it, whereas it would be possible for the Coast Line to handle it over any route of that distance, our rate being in most cases slightly higher. It is fair to say that he has observed the same basis in figuring his costs north of Richmond, but you have more margin in which to cut our distance than you do north.

By Judge Chesnut:

I don't believe I could exactly say that southern lines are more circuitous and deviating from a straight line than the northern lines but we haul it eight hundred and seventy some miles, and to whatever extent there is any security there is more miles security in that length than there would be north of Richmond if they had the same amount of mileage, because on the average the hauls north are shorter than they are south.

By Mr. Gwathmey:

Q. Mr. Doss, Mr. Hodkinson stated, if I correctly understood him, that even where cars are diverted in transit, he, in figuring his distance used the short line distance between origin and destination. Does that mean, for instance, that a car might start out from Florida and start to some point [fol. 2478] in the west and move in a westerly direction and then be diverted back in an easterly direction towards Richmond and ultimately go through Potomac Yard, and still, under his basis he would apply the distance for the shortest possible route between point of origin and Richmond?

A. That is true. The added hauls on diverted traffic so far as the Coast Line is concerned usually results from the use of Waycross as the diversion point.

These exhibits were personally prepared by me or under my direction and they are true to the best of my knowledge and belief.

Mr. Gwathmey: I ask that they be received in evidence, and in that connection I forgot to make formal tender of

the exhibits offered by the witness Kennedy and the witness Lamb and I ask that they be received.

Cross-examination.

By Mr. Beach:

When I put in these exhibits before the Commission I did not use the same method of computing miles north and south as Mr. Hodkinson used. My exhibits show, so far as we are able to determine it, the distances by actual routed movement. They also show the short line distances as information in connection with each origin and each destination, and it is true that the Commission prescribed the [fol. 2479] rates based upon the short line distances. I recall a statement in the southern class rate case by the Commission substantially to the effect that when it prescribes rates based on short line distance it takes into account the fact that the actual hauls are sometimes in excess of the short line hauls, and my citrus rates here are related to one of the columns of the southern class rate scale. They are sixth class with the exception of trunk line New England territory where they are slightly higher. It is further true that the scale of division factors set up in the Commission's order is directed by the Commission to be applied against short line distances.

Turning to Exhibit No. 4, it is a fact, taking New York for example, if I use the 774 miles there shown south of Richmond that I would then use to obtain the equivalent northern factor, a mileage of 231. In other words, the column headed with the figure 774 works with the column headed with the figure 231. In other words, the northern line mileage is depleted there by the difference between 346 and 231. If you use the actual miles north, that is the column headed with the figure 346, then you come over to my next to the last column and use that mileage block and that gives the equivalent of a mileage pro-rate, and it shows that using actual miles north our southern miles will be inflated from 774 to 1158.

[fol. 2480] I do not recall exactly whether my testimony before the Commission was to the effect that these single line hauls were more economical or that perhaps the expenses over such single line hauls were not as great as where multiple line hauls were involved, but I think it is generally conceded that a haul over a single line for the same distance

does not involve as much expense as a joint haul inolving two or more lines for the same distance. If the Baltimore & Ohio in combination with the Reading and with the Central Railroad of New Jersey handled a car from Washington, D. C., to New York, the expense would be more for the two or more line haul than if the Pennsylvania takes that car all the way from Washington to New York. Not knowing so very much about the physical layout of the Baltimore & Ohio connections, I could not say that that would be my judgment but if every other thing was equal and it was just merely the difference in the number of lines, I would say it would be more expensive the more lines you include. What I meant to indicate is that transferring traffic from our line to the Seaboard and back represents additional handling.

Referring to my Exhibit No. 6, as well as I can remember these division sheets, the percentages that the eastern lines get on transcontinental traffic are the same on all commodities, regardless of whether they are citrus fruit or what. I think a traffic man in agreeing to divisions would consider [fol. 2481] the whole body of traffic that he interchanges with the transcontinental lines. Of course, this movement of California fruit is very large and an important one. Other than vegetables, I do not call to mind, at the moment any other commodity that moves in such volume from the Pacific coast. We daily, on our road, run up against competitive situations which force us to decrease our rates, and sometimes we reduce the rates way below what is reasonable in order to get traffic that we otherwise would not get. That is on the added traffic theory but I don't know of any case where we put in a rate which would not pay our out-of-pocket cost. There is a distinction between out-of-pocket cost on the added theory traffic and confiscation.

It is a fact that the southern lines get about the same proportion out of those transcontinental rates as the lines north of the Ohio and Potomac Rivers. They get very low proportions out of the California fruit which we deliver in our territory. Those divisions, however, were fixed by the Interstate Commerce Commission, but the rates have been reduced since then.

The gentlemen I listed solicit citrus fruit and vegetables principall yin Florida. Getting a car of traffic is supposed to be their principal vocation.

By Mr. Eshelman:

Most of the loss of citrus traffic to which I alluded in my [fol. 2482] testimony to both lines was traffic destined primarily to port cities of Baltimore, Philadelphia, New York and Boston, and more particularly to New York. In an effort to try to meet that competition the southern and northern lines joined in making the temporary reductions to which I referred and which now have expired. Those reduced rates were made after conferences were held between the representatives of the various participating lines. They were, however, subject to increased minimum weight. I think it was 39,600 pounds, if I remember correctly. The amount of that reduction, generally speaking, was twelve cents per hundred pounds. My recollection is that about a couple of years ago the Florida lines in conjunction with the eastern lines made some temporary reductions only to Boston, New York and directly intermediate points in an effort to meet this truck and boat competition from Florida. That action, as I recall it, was followed by a demand from the California shippers that corresponding reductions be made from California. Of course, the rates from California to New York and Boston could not be reduced without at the same time reducing the rates to all other intermediate points, and it wound up last season by our having a twelve cent reduction both from California and from Florida to practically all official territory. The initial reduction, I would say, was in the rates from Florida to eastern port [fol. 2483] cities where practically all of our competition was encountered, but that action caused the California lines to reduce the rates to the entire territory east of the Rocky Mountains and then we had to make reductions from Florida which we did not contemplate at all when we first started out.

In my Exhibit 6 I have shown intra-territorial divisions for northern lines on southern traffic, that is to say, when a car of citrus fruit would come to the Richmond gateway, in some instances you would show divisions of the northern lines from Potomac Yard to New York or Philadelphia or Baltimore. I am showing the subdivisions of the proportions accruing beyond the intra-territorial gateways. Similarly I have shown subdivisions on California traffic at various sections in official territory. I necessarily had to break down the California divisions in order to get com-

parable hauls with the hauls from Richmond to Potomac Yard. Take, for illustration, the second page of that tabulation of that exhibit, the last block, the second item from California, the movement over the Cleveland, Cincinnati, Chicago and St. Louis Railroad and the New York Central lines from East St. Louis to Buffalo when the ultimate destination of the car is Albany; both Buffalo and Albany are served by the New York Central system lines, and yet it is true that I have shown a portion of the revenue from East St. Louis to Buffalo when the ultimate destination is [fol. 2484] Albany. That would not, of course, include the expense of delivery at Albany. It is merely a comparison of these several divisional proportions as reflected in division sheets, as I understand it. I could not tell you whether it would have been more logical to have taken the distance from the gateways such as Chicago and St. Louis to destinations in Central territory to secure my comparability of distance to the southern gateways. Let me say this, that this Exhibit 6 is very few of the comparisons which were made in my Exhibit 43 and 45 which were filed during the citrus divisions case hearing. I do not know of any fairer way to contrast what the Commission has prescribed for the eastern and New England lines on Florida fruit than to show what those same lines receive on California fruit. I do not mean for the Court to understand that the Commission has prescribed these subdivisions for the northern lines. If this California fruit had been moving over the same lines as the Florida fruit I wouldn't have had any difficulty in finding these comparisons. The best comparison, in my opinion, in here is this comparison showing the New Haven's earnings from Harlem River to Boston where the fruit from California and Florida moved through the same gateways but you can readily understand that California fruit coming from one direction and Florida the other, you don't find them moving exactly on the same lines of railroad. The Florida lines had voluntarily waived their [fol. 2485] arbitraries on certain traffic. It was done just like the Commission fixes a reasonable rate on citrus and the competition gets so keen that rather than lose traffic we will put something in lower than a reasonable rate. I remind you that the southern lines were willing to pro-rate all the way through from origin to destination in the scheme of divisions which we submitted to the Commission and endeavored to defend.

By Mr. Boynton:

It is true that some of what I call the present rates, meaning those established by the Commission effective on November 9, 1928, represented increases over the prior rates. As I recall, the rate to Boston was increased.

L. L. KNIGHT, a witness on behalf of the defendants, having been duly sworn, was examined and testified as follows:

Examined by Mr. Gwathmey:

I am L. L. Knight, Portsmouth, Virginia; General Auditor for Receivers of the Seaboard Air Line Railway. My experience in railroad accounting matters extends over a period of about twenty-five years. During that time, of course, I have been engaged on various classes of accounting work. Much of my time for the last several years has [fol. 2486] been taken up with specific studies on selected portions of the Seaboard System.

I have prepared certain exhibits designed to indicate the extent to which such terminal costs as have been alleged by the petitioners as their cost of handling citrus fruit and other perishables offset, or more than offset, the cost of originating citrus traffic in the Florida peninsula, and I was able to do this through certain currently compiled costs incident to the separation of expenses of mortgage sections, required by order of the receivership court. There are three of those sections in Florida that I have chosen to use for illustrative purposes in this case. All three of those sections are citrus and perishable producing lines and they are operated solely in freight service so that they lend themselves very readily to an approximate determination of the cost of originating perishable traffic on those lines.

This series of exhibits will constitute my exhibits K-1 to K-4, inclusive, and I have prepared, to accompany those exhibits, a brief narrative explanation.

Exhibit No. K-1 is merely a procedure outlining how certain of these selected operating expense accounts and other direct costs have been allocated to these particular sections of the line, this procedure being in all respects

the same as that observed in our detail separation by mortgaged and leased lines of other sections of the Seaboard [fol. 2487] System. I don't think there is any other explanation appropriate for that. Now, Exhibit K-2 takes up a section of the Seaboard's lines in Southern Florida, east of Orlando, at the extreme end of what is known as our Lake Charm-Wildwood line. That line runs through Orlando to a terminus at the east at a point called Lake Charm; but extending in—you might say in the shape of a square for a distance of approximately eight and three quarters miles, have been constructed vegetable spurs to serve a very extensive vegetable and citrus producing section known as the Black Hammock District. The Black Hammock spurs will be found in the lower portion of the map, in the Florida section almost at the extreme right. These spurs are really in the shape of a square. These spurs, in fact, surround that Black Hammock vegetable and citrus producing section. It is this portion that is circled in green, labeled "Black Hammock Spurs."

Now, on those spurs there were produced n perishables, fruit and vegetables combined, for the three years 1931, 1932, and 1933, an average of 487 cars per year. There were terminated, mainly crate materials and fertilizers, on these spurs an average for the three years of 20 cars, making in all an average of 507 cars originated and terminated per year. Now, the costs that I am dealing with here are only those costs which practically allocate themselves to this particular section of the road. For example, I have [fol. 2488] shown in the operating expense group only the maintenance of way and structures, maintenance of equipment, and the transportation cost. I have omitted from that traffic expenses, general expenses, and various other overheads. Next, I have taken the taxes actually allocable to the line and then, finally, I have computed the equivalent of five and three quarters per cent return on the value of the spurs. The significant figures are really shown against lines 8 and 9. These partial costs, exclusive of computation of return on investment, average $11.56 per car. That is computed on the basis of all cars, both originated and terminated. Including interest on investment, the average partial cost for the three-year period is $32.13. The average haul, as will be noted against line 12, was less than 4 miles.

On Exhibit K-3 I have taken up what is known as the Snead's Island Spur. That is shown in the lower portion of the map, to the left, and is marked in yellow. This spur likewise serves vegetable and citrus territory. It is approximately three miles in length, and over the same three years, namely 1931, 1932, and 1933, fruits and vegetables originated on this spur averaged 46 cars per annum. Cars terminated—inbound cars terminated, consisting mainly of fertilizer and crate materials, averaged 10 cars per annum, or a combined average of 56 cars per annum. Now, on this spur I have not undertaken to take up in my partial costs [fol. 2489] any items other than the repairs of the track, covered by Item 2-A, maintenance of way and structures, the actual taxes payable on the track, and the five and three quarters per cent return on the investment. Considering those items, all traffic originated or terminated during the three-year period gives in the aggregate $67.33 per car, of which $11.52 consisted of maintenance and taxes and the balance return on investment. The average haul is here shown to have been 2.23 miles.

By Judge Chesnut:

The main contributing factor for the partial costs, excluding return on investments, being only $4.13 in 1932 as compared with $19.20 in 1931 and $14.67 in 1933 is the difference in number of cars handled in 1932. They apparently had a fair season in that year because they shipped in the one year almost as much as they shipped in the other two years combined. Then too the difference in the maintenance of way was right appreciable; for example, in 1931 the maintenance was $811.00 ,whereas in 1932 it was only $169.00. Of course, maintenance of a track of this kind is not always uniform from year to year. That is one reason for giving you a three-year average.

By Judge Soper:

I got my reproduction cost from our valuation people. I felt justified in using that as a basis for return on invest- [fol. 2490] ment because we contend that the present day values are very much in excess of that. These are conservative. On Exhibit K-4, the last line on page 12, I have dealt with that section of the Seaboard's line on the east coast of southern Florida. It simply means that over this

line which is three miles in length the freight averaged moving 2.23 miles. It did not move the full length of the line. That indicates simply the distance that the car was moved to get it to the connection. I do not have any figures on these tables showing what our revenue returns were. I am dealing here solely with costs.

As I stated previously, Exhibit K-4 takes up the extreme southern section of our line on the east coast of Florida, extending from Miami to Homestead, a distance of approximately 27 miles. That line has from the time of its opening been operating solely in freight service, no passenger service being operated whatsoever. That section of the line likewise serves a vegetable and citrus producing section in southern Florida.

I might say at this juncture that I am giving you the costs on this line for only twelve months, because I had available those costs only for this one year. They were worked up at the special request of the Receivers and not currently compiled in this manner.

The period I have covered in this exhibit is the twelve [fol. 2491] months ending March 31, 1931, during which period 350 cars originated on this line, 360 cars terminated on the line, an aggregate number of cars of 710.

By Judge Way:

More cars terminating than originating on the line was due to some road materials going through there, manufacturing materials, fertilizers, and the like.

By Mr. Gwathmey:

Looking at lines 13 and 15 of this Exhibit K-4, it appears that there is an excess of empty refrigerator car miles over loaded refrigerator car miles, this being explained in the ratio of 1¼ to 1. That is easily explained; it is impossible in the loading territory to confine your empty refrigerator car movements to the equivalent of your loaded refrigerator car movements because it is inevitable in placing cars for prospective loading you will move cars to points which later on will have to be moved to point A, and sometimes all the traffic that is in sight does not finally materialize, so this ratio of 1¼ to 1 is very conservative for the loading territory. That general condition obtains through-

out the entire loading territory in Florida, and in some sections, in my opinion, to a very much greater extent.

By Judge Soper:

Q. It indicates the railroads have plenty of cars nowadays, doesn't it?

[fol. 2492] A. These cars are privately owned cars. If we don't have the car supply available, we don't get the traffic. This, of course, covers a very recent period and there is not much shortage of cars at this time.

I wanted to explain, Mr. Gathmey, how the perishable traffic on this line for the three years compares. Since I was unable to give the costs except for the one year, I will have to refer to this narrative to bring that out. This line, during the year ended March 31, 1931, the period covered by my Exhibit 4, originated 338 cars of fruits and vegetables and 12 cars of less than carload traffic. There were terminated on the line 187 carloads of carload freight and 173 cars of less than carload freight, making a total number of loaded cars handled of 710. I was under the impression there was some point in this memorandum that I had the relative perishable loading for the three years. Perhaps I will come back to that a little later, but in any event the cost per revenue car handled on this section of the Seaboard Air Line for the twelve months ended March 31, 1934, was $135.36 per car, of which $35.06 consisted of maintenance of the track, structures, maintenance of the equipment, transportation expenses, and railway tax accruals.

By Mr. Gwathmey:

That completes my discussion of those originating costs. [fol. 2493] The contention made by the petitioners to the general effect that the unit cost of operation over such of their lines as the line of the Pennsylvania Railroad between Potomac Yard and New York and the B. & O's. line between Potomac Yard and Philadelphia were in excess of the system average costs absolutely astounded me and I propose particularly, in view of the very heavy density both in freight traffic and in passenger traffic enjoyed by those sections of the Pennsylvania and B. & O. to show first the relationship in freight density and passenger density of the principal sections of the Baltimore & Ohio and the Pennsylvania Railroad involved in the handling of this citrus fruit

traffic through the Potomac Yard gateway to the same figures for the balance of their systems. After I have done that I had hoped to give you some illustrations which will show that this extremely heavy traffic density, both in freight and passenger, is conducive to a very decided extent to the lowering of unit costs below the system average costs.

There are six exhibits in this series with which I will now deal, Mr. Gwathmey, No. K-5 to K-10, inclusive, all of which are explained in a general way in the narrative statement accompanying it. May I at this juncture, Mr. Gwathmey, explain that I have three exhibits relating to the Baltimore & Ohio which are similar to Exhibits K-5, K-6 and K-7, prepared for the Pennsylvania which were not avail- [fol. 2494] able to me in time to refer to them in this narrative statement, but these parallel Baltimore & Ohio exhibits are prepared in like manner to the Pennsylvania exhibits K-5, K-6 and K-7 so that the narrative statement might be considered as applicable to those exhibits also and I would like to suggest further that these Baltimore & Ohio exhibits be numbered K-5A, K-6A and K-7A. These maps are based particularly on what we have been referring to here as the Copeland Chart.

By Judge Soper:

Q. I don't know whether this is an irrelevant general remark or whether I properly understand it but on page 750 of the Commission's report when they are talking about traffic density there is this sentence: "Defendant called attention to the fact that greater density of traffic may entail higher capital expenditure as well as greater operating difficulties, particularly at terminals as we ourselves have had occasion to point out." In order that I might understand the point to which you are directing your testimony, I ask you whether it is your purpose to show in this particular case what the Commission here said has no application?

A. Your Honor, I propose to show by actual illustrations which I will later give you that apparently that finding by the Commission was based on the oral testimony of operating witnesses of the Baltimore & Ohio and Pennsylvania [fol. 2495] and other eastern roads in which they spoke of cost very much as Mr. Menaugh spoke of cost here the other

day, you might say, in somewhat of a superficial sense. They were speaking more, as I understand it, about purely surface costs with which an ordinary transportation man has to cope from day to day, namely, his train wages and his fuel and his other strictly direct costs. I hope to be able to illustrate my point a little bit clearer later on. This exhibit K-5, Your Honor, is extremely important. The track outline on this map is an exact reproduction of the so-called Copeland—that section of the so-called Copeland Density Chart to which Mr. Fell referred to on Tuesday. Where there are more than one main tracks it is indicated by more than one track line; for example between Washington and Newark, New Jersey, there are anywhere from two to five and six tracks as will be clearly apparent when you look closely at the map. You will see what a vast network of lines the Pennsylvania Railroad really is made up of, a very large number of which are ordinarily referred to as branch or feeder lines. I have taken for the season 1928 and 1929 from Doss Exhibit 25 filed in the instant case before the Commission distribution of all citrus fruit traffic moving via the Potomac Yard gateway, via the Pennsylvania Railroad from Potomac Yard. During that season they handled out of Potomac Yard 24,123 cars. When we come up to Baltimore some go West and most of them go east. [fol. 2496] When we get to the section between Trenton, New Jersey, and Newark, New Jersey, there are 15,500 cars left. When you pass Newark and go over towards Jersey City there are 15,188 cars and so I have disposed on this map of all of the cars to final destination or to interchange with foreign lines with the exception of sixty-nine scattering cars moving over nineteen different sections of uncolored lines of the Pennsylvania, ranging anywhere from one car to as many as eight or nine cars. For example, the Doss Map shows that some two or three cars were handled between Philadelphia and Atlantic City via the West Jersey and Seashore. I didn't plot that because that is unimportant to that line. So that after allocating my cars of citrus to these lines that handled the citrus, I then compiled from the Copeland Freight Traffic Density Charts the freight traffic density measured in terms of net tons one mile per mile of road for these particular sections of the line. Of course, the depth of traffic varies not being the same on any two sections unless by accident. After doing

that I have aggregated the net ton miles handled by all of these lines that are colored in red and I have divided that by the number of miles of road involved and I have related that to the Freight Traffic Density for the uncolored lines. The red coloring on that map does not purport to indicate the density of the citrus fruit traffic but the density of all [fol. 2497] traffic, and that covers the lines over which citrus fruit is handled. When I make that computation I find that the density of these lines covered in red average 12,440,000 ton miles per mile of road. I have indicated that graphicaly in red on this section of the map. Then I have taken the remainder of the net ton miles made by the Pennsylvania system and have made a computation of that and I find that is equivalent to 3,400,000 ton miles per mile of road, this citrus section being equivalent to approximately 365,6 per cent per mile to this section here. The depth of this line and the depth of this line will indicate graphically the true relationships.

By Judge Chesnut:

After I have routed all of this citrus traffic over these Pennsylvania lines I have computed from the Copeland Density Chart the aggregate net ton miles moved during the year on all of these colored sections. I have divided that into the miles of road covered by these red lines. The result is an average for these colored lines of 12,440,000 ton miles per mile of road. I compare that thinner line with the density of traffic for the remainder of the system, the unaffected lines, I call them. I then mean to say the thinner line is the average for the rest of the system.

By Mr. Gwathmey:

The average of 365 or 6 per cent represents the relationship in ton miles per mile of road of the citrus handling [fol. 2498] lines to the non-citrus handling lines from the standpoint of traffic density. It is more than three times as great.

Exhibit K-6 is merely a tabulation showing how I derived the figures which are plotted on that map. Whereas I could obtain from the Copeland Density Chart the relationship of these particular lines to the balance of the system as to freight traffic, I had no such way of obtaining the relationship of these lines to the balance of the system when

applied to the passenger traffic. In the absence of any other source I was compelled to go to the Railway Official Guide which is issued monthly and in which the Pennsylvania Railroad, like other railroads, advertises scheduled trains showing the various trains of the system. Taking those guides for the twelve months of 1929 I have tabulated at considerable labor, I might say, the advertised passenger train miles over certain selected portions of the Pennsylvania's lines principally involved in the handling of this citrus fruit; namely, I have taken the line between Washington, D. C., and Newark, New Jersey, between Baltimore, Maryland, and Harrisburg, Pennsylvania, between Harrisburg, Pennsylvania, and Pittsburgh, Pennsylvania. The relationships which I seek to establish are really indicated in the last column of Exhibit K-7. The advertised passenger train miles, for example, derived from the Official [fol. 2499] Guide for 1929 for the section between Washington, D. C., and Newark, New Jersey, were equivalent to a passenger train density over that particular section of the line in a ratio of 828 percent of the average system passenger train density. The line between Baltimore and Harrisburg was in a ratio of approximately two and one half times the system average. The line between Harrisburg, Pennsylvania, and Pittsburgh was in the ratio of approximately four and a quarter times. Those three lines combined had a ratio of approximately five and one half times the system average.

By Judge Soper:

It is my theory that the density of passenger traffic cheapens the cost of freight traffic per train mile and I hope to be able to show that.

The figures shown in the second column of Exhibit K-7 are only the aggregate of the advertised passenger train miles. I know for a fact that that vastly understates the actual train miles made over this section and when I come to discuss a parallel exhibit for the Baltimore & Ohio I will show that the understatement appears to be in the ratio of something like—I will undertake to show that the figures derived from the Railway Official Guide may not represent more than, say, 100 as to 175. If you could obtain the actual train miles consisting of second sections of the scheduled trains, unscheduled trains and all that and compute

[fol. 2500] that all in these percentages shown in the last column it would be very much further magnified, in the case of the Pensylvania perhaps going as high as twelve or fifteen times the system average between Washington and Newark instead of only eight times which I show on this exhibit. Do you think it well at this point for me to discuss the Baltimore and Ohio exhibit? There is not much discussion necessary, as I see it.

The relationship in the case of the Baltimore & Ohio from a freight traffic density standpoint instead of being 365 or 6 per cent is about 352 per cent of the balance of the system and likewise the map outline has been prepared from the density charts furnished by the Baltimore & Ohio people. I have just explained Exhibit K-5A which is the outline map. Exhibit K-6A will simply give the details underlying the preparation of that map. Exhibit K-7A is the one on which I would like to comment at a little length, if I may. If I may be permitted, Your Honor, I propose to show by Exhibit K-7A the passenger density of the Baltimore & Ohio line between Washington, D. C. and Philadelphia, Pennsylvania, as derived from the Copeland Chart. In the case of the Baltimore & Ohio the Copeland Chart not only gives the freight traffic density but also the passenger traffic density. That is for 1924. I undertook to get '29 but you people were unable to furnish it to me. I tried dili-
[fol. 2501] gently to obtain it so I think 1924 illustrates my point just about as satisfactorily. Exhibit K-7A simply contains two tabulations of figures. The first tabulation shows the passenger one mile taken from the Copeland Density Chart for the line of the Baltimore & Ohio between Washington, D. C. and Philadelphia, Pennsylvania, and then on the second line I have shown similar figures for the entire Baltimore & Ohio system. In the last column the figure of 550.45 percent represents the percentage relationship in density measured in terms of passengers one mile per mile of road of the Washington-Philadelphia line of the B. & O. to the B. & O. system average passenger one mile per mile of road. It is a fact that practically all of the Florida citrus fruit that goes into New York City goes in there over the Pennsylvania Railroad. On the other hand, the Baltimore & Ohio gets a substantial portion of the business that goes to Philadelphia as well as Baltimore, but as far as New York is concerned I understand practically every car goes in over the Pennsylvania.

Your Honors, in explaining Exhibit K-7 on which I undertook to contrast the passenger train density of certain sections of the Pennsylvania involved in handling of citrus with the Pennsylvania system average I took occasion to say that I was convinced that the computation made as it was from the Railway Official Register lastly understated the true relationship in passenger density and I now want [fol. 2502] to explain why I made that assumption. With every hope of obtaining the Baltimore & Ohio Density Chart for 1929 I prepared in advance of this hearing for the Baltimore & Ohio line between Washington and Philadelphia the advertised passenger train miles of the Baltimore & Ohio on that line which I had, related to the Baltimore & Ohio system. Had I used the figures thus arrived at for 1929 the Washington-Philadelphia line would have had a relationship to the system of only 312 per cent. Now, when I am fortunate enough to obtain the Copeland Passenger Density Chart for the Baltimore & Ohio for the year 1924 I find that when that is translated into terms of passenger one mile per mile of road which is really comparable with the term freight ton mile per mile of road as to freight traffic, I find that the Washington-Philadelphia line has a ratio relationship to the system as a whole of 550 percent instead of only 312 per cent on the advertised train mile basis.

By Judge Soper:

Copeland got his information from the Baltimore & Ohio people. I know of no road which Copeland plots for passenger traffic density except for the Baltimore & Ohio. He doesn't do it for us and doesn't do it for numbers of roads about which I have inqured. If I had any more reliable basis than the Official Guide I certainly would have looked for it. That completes my showing as to the relative pas- [fol. 2503] senger and freight density of the citrus sections of these two railroads to their systems as a whole.

By Mr. Gwathmey:

Having shown that the traffic density on the citrus carrying lines of the Pennsylvania and Baltimore & Ohio is several times greater than the system density, I feel that this

heavy traffic density must necessarily result in lowering the unit operating expenses below the system average unit operating expenses. In the course of my work with the Seaboard I have had occasion to make numerous comprehensive studies of various sections of the Seaboard, some of light density and some of relatively heavy density, and it has been my experience that when you look at these costs all the way through and not just superficially, you will see that the heavy density as contrasted with light density in railroad operation has a very decided influence toward the lowering of the unit costs of the heavy density lines below the system average unit cost, very much, I might say, as is true in the case of industry, mass production makes for lower costs.

By Judge Soper:

There are numerous reasons why it is true that the costs are less where the traffic is dense. One of those reasons has been expressed in this hearing already. Mr. Fell, I believe, is one witness who made a particular reference to the fact that such a large percentage of the maintenance of [fol. 2504] way group of expenses are unaffected by use; they are constant. He stated that only one third of the maintenance of way group of expenses are considered as fluctuating with use. The other two thirds are a constant factor. When you go into the next block of expenses which has to do with your maintenance of equipment, the upkeep of your locomotives and the like, it is likewise generally recognized that almost fifty per cent—I believe, to be exact, about forty-three per cent—of the group of expenses are non-fluctuating with use. Then when you pass on to your train operation, that is your transportation group of expenses, there are certain expenses that are absolutely unaffected by volume of traffic, for example, crossing watchman, a man operating crossing gates. It makes no difference whether he has to lower gates for fifty trains a day or five trains a day if he has to be there. Drawbridge operation is another example in the transportation group. Then when you come to the other transportation expenses there are numbers of items in that group of expenses that while they may fluctuate some with volume they don't fluctuate anywhere nearly in proportion to volume so that the more volume you have over which to spread these common items

of expenses it necessarily follows the less overhead per unit. There are not any countervailing considerations of any particular consequence that I know of. In fact, I don't know offhand of any. It has been my observation that [fol. 2505] terminals vary in size and extent very largely in proportion to the volume of your traffic. Of course, if you have a traffic volume on one section that is five or ten times the average of your system it necessarily follows that you have to have more yard forces and more this, that and the other that enters into the terminal expense group but it is impossible to visualize those things.

Q. But is it not more expensive per unit? For instance, we all think when we get in the metropolitan district like New York that everything there is expensive because of conditions of travel, the demand is great and it costs more to do business there than other places?

A. I don't like to try to speak in an abstract sense. I like to speak from my own experience.

Q. I am sure of that but you are doing this for my sake and you are speaking from an abstract sense and you are giving me the reasons why abstractly you think your view is right. I am asking you to consider the other side of it.

A. I will say I have considered this side. Uniformly the volume of yard operations or any other terminal expenses like that give you the best opportunity to fully utilize—to get value out of the money you spend. You don't have idle yard engines standing around waiting for this, that and the other and you can get a more even distribution of your work. I say if that obtains on our railroad I don't see why [fol. 2506] it should not obtain in these other terminals.

I don't think the crowding of the track causes any greater expense. It might in some cases maybe run you up into a little extra fuel cost or something of that sort but I don't think that is worth talking about. For example, Mr. Menaugh in this present case before the Commission put in a train density map over which he showed that he was able to pass expeditiously between Philadelphia and Newark, I believe, something like ninety passenger trains a day and a large number of freight trains per day and his tracks in these range from four to six tracks. The organization and equipment takes care of those situations, as I have observed.

Q. There is very much to be gotten out of one sentence here but I understand we are dealing with a subject matter with which we are somewhat unfamiliar and here is a body dealing with a subject matter with which it is thoroughly familiar and it indicates in this statement not only as to this particular case but as to other cases to which it refers that greater density of traffic may cause greater capital expenditures and make greater operating difficulties than other parts of the system. You don't think there is anything in that at all?

A. Your Honor, I have read every word of testimony that was put in bearing on this point before the Interstate Commerce Commission and I heard the testimony given [fol. 2507] and its was along the same lines as the testimony given by Mr. Menaugh and certain other witnesses who testified in this present hearing and I don't question the good judgment of those people. I think they were actually relating how they operate their railroad but I say they are talking about these surface costs very largely and, of course, I can't say all that the Commission had in mind in writing that finding there or that opinion but that is just my judgment.

Mr. Beach: If I may invite attention to page 377 of the Commission's second report, Exhibit B, you will find there some of the factors that are on the other side of the picture showing that we have about 260 per cent investment greater per mile than our southern friends.

By Judge Chesnut:

Q. Mr. Knight, I am wondering whether you are not really confusing the depreciation or lessening of expense of operation in a dense traffic area with an increase of net operating profit for that area. As I understand your proposition, it is this: While density of traffic in a particular section of the road may possibly cause some slight increase in directly distributed costs, yet when you relate the whole volume of the traffic to the whole overhead which has to be indirectly distributed over the whole of the traffic, the much greater amount of traffic to which the whole of the over- [fol. 2508] head is related serves to diminish that element of indirectly distributed costs and thus in that way decreases the cost per unit?

A. That is substantially what I have in mind.

I don't mean that it costs any less to the Pennsylvania Railroad to haul a train of citrus fruit cars of a certain amount, say fifty cars, from Washington to New York than it costs them to haul it from Washington to Altoona which has much less density of traffic. I was speaking of the entire expense and that is why I spoke of these superficial costs. I mean to say this, that perhaps in your actual train service cost, fuel and wages which, after all, constitute but a small part of your total cost of producing a transportation unit, maybe the cost might be the same, all other things being equal, but the thing is this, that the big part of your expense burden is diluted per unit of traffic by increased volume, you see, and that is the big part of the whole expense. I am using particular sections of the Pennsylvania Railroad over which the citrus traffic moves. I have to do that in order to show that this is to them main line traffic moving over their lines of heaviest density both in freight and passenger. If both trains carry the same tonnage I should say it ought to work out about the same cost per mile to the Pennsylvania Railroad to haul a given amount of citrus fruit from Washington to New York as it does to [fol. 2509] haul it an equal distance to Altoona, Pennsylvania. By "cost" I mean the actual direct cost of moving that train. Density of Traffic has a decided influence even in your haulage costs because it permits of a more uniform trainload than you can obtain on your side lines, we will say, where you must operate a minimum of train service anyhow and in many cases very short of what you could carry in a train.

By Judge Soper:

I refer to the direct costs of operating the train. That would consist of the wages of the engine and train crew and the fuel. Where you really get your lowering of costs on your heavy density lines is in the proportions of one third attributable to use and two thirds of the cost attributable to wear and tear of the elements.

By Judge Way:

The situation is that in moving every train from one point to another there are certain units employed in that

movement that apply to all trains in that you get greater use out of your yard engine and greater use out of your terminals, switching and other things that enter into it by the increased density of traffic and that is why I was trying to distinguish between what I term direct costs and those that are so-called indirect costs.

By Judge Soper:

The heavily shaded areas on the map of the Penn- [fol. 2510] sylvania and the B. & O. also represent the most valuable property that the railroads have as some of those go through important centers. It is a fact that the absolute investment in those portions of the road is greater per mile than in other portions, and the investment cost is diluted by heavy traffic. The average investment for the whole system per mile is obviously less than the investment for the expensive portions, but I don't think that that element, when you figure it out on a car mile basis tends to show that the car mile unit is less than the particular mileage attributable to the expensive traffic.

Q. What I am trying to say is this: You have got a very expensive portion of the system over which perishables chiefly go. Then you have got a lot of other mileage which is not so expensive. When you reduce the thing down to a system average, unit mile cost, one of the elements which enter into that is your investment and when you are trying to get it down to a system unit for the whole system must not the investment part of that cost be less than that part which would be attributable to the expensive parts of the system? You are using expensive parts of the system in the fruit business more than you are the inexpensive parts?

A. Yes, and if we didn't have this tremendous volume, for example, the passenger traffic from eight to fifteen times the system average, I would say the unit costs through these [fol. 2511] larger cities would result in perhaps relatively higher unit costs for investment but this vastly greater use tends to absorb all that.

Mr. Gwathmey: The answer, I believe, is yes, if I understand his Honor's question which is so far as investment itself is concerned, laying aside any question of units or anything of the sort, where you have a heavy property investment on certain portions of your line certainly it has

to be spread if you are going to consider the system as a whole and tends to raise the investment value of the system as a whole. I will admit that.

By Judge Way:

If you pile up your freight tonnage over the same line, as you go higher the cost is less to carry it, whatever unit you want to measure it by.

By Judge Soper:

I have explained the approximate extent to which the operating costs do not fluctuate with volume of traffic. Now, I next want to illustrate very briefly the extent to which operating expenses of property when used in common by both freight and passenger, particularly over sections of the line where you have a considerable volume in both services, with both services sharing those common expenses together, it tends to further dilute the non-fluctuating costs. For example, taking the Seaboard by way of illustration, some- [fol. 2512] thing substantially in excess of forty percent, I believe, of our total operating expenses are of the common nature in the benefit of both freight and passenger. For example, operating water stations, dispatching trains, operating interlockers and signals. Where those signals protect both classes of trains, you see, and the extensive use by both services of the operation costs of this particular item of expense tends to much further dilute and reduce the unit cost that each service has to bear. By each service I mean the freight service and the passenger service.

By Mr. Gwathmey:

My next exhibit is No. K-8. I have already explained that the Seaboard, under orders of the court, is compelled to keep its operating expenses and various other accounts separated as between various mortgaged and leased lines comprising the Seaboard system. This separation has enabled me to draw these comparisons that I have undertaken here on Exhibit K-8, right in line with my theory that heavy passenger and freight traffic density over a particular section of the line tends to the lowering of the unit cost on that particular section below the system average. I have taken for the purpose of illustrating a high density line that section of

our line north of Raleigh extending through Henderson, North Carolina to Weldon, North Carolina, for a distance of 98.35 miles. That section is covered by our Raleigh [fol. 2513] & Gaston first mortgage. Over sections of that line, particularly between Norlina, North Carolina, and Raleigh, North Carolina, occurs our greatest density in both freight and passenger service of any point on the system. That is, you might say, the neck of our bottle. That is single track railroad. At various times we have hoped to double track it, but, for one reason or another, have had to postpone it. So, if there is any point in this thing of interference of one train with another, and so forth, because of the busy parts of railroad, I think it would apply here more than on any other section of the Seaboard. Now, that line, as compared with another prineipal main line of the Seaboard extending from Monroe, North Carolina to Atlanta, Georgia, a distance of some 270 miles, that line is covered by the Georgia, Carolina and norther mortgage. Its density is substantially in excess of the system average but not much more than half as dense per mile of road as the Raleigh & Gaston. Then, I have chosen for the third line to use for illustration our line between Savannah, Georgia and Montgomery, Alabama. That has a density somewhat below the system average and is classified as perhaps a secondary main line. That line is 454 miles in length. Exhibit K-8 undertakes to point out the significance of comparisons which I want to draw from this exhibit. The revenue ton miles per mile of road over section 1, which is the heavy [fol. 2514] density section, is in the ratio to the system of approximately 25 percent. That is shown on Column 4 of the third item; 248.79 percent to be exact. That means that the freight traffic density in revenue ton miles per mile of road over that particular section is 2 and one half times as heavy as the average per mile of road for the entire system. Then, the next item to which I wish to call attention is the fact that in this mortgaged line separation we make no effort to separate our expenses for those separate mortgaged lines as between passenger service and freight service. Therefore, in order to determine a common equation factor so as to merge your passenger business into your freight, and vice versa, I have taken the passenger one mile handled over this particular section of the road, and I have increased them in the ratio of three to one.

That is known as the three to one basis of equation which was used in the citrus case before the Commission. The theory there is that it takes three tons one mile of freight to equal carrying one passenger one mile. After making that equation we find, on line 7, that the combined freight and passenger density relationship of the heavy density line is in the ratio of 310.35 percent to the system average per mile of road.

The next significant figure is shown in line 10-C. Here again in this exhibit I have dealt only with those expenses that I can very easily allocate, such as maintenance of way, [fol. 2515] maintenance of equipment and train service expense. Against the line 10-C I show these partial costs per one thousand traffic units are in the ratio per mile of road for this line 76.14 percent to the system cost per traffic unit. Then in the following section of the exhibit, in order to show this method of conversion of passengers into terms of freight on a different basis, I have determined on the system the freight costs per ton mile as reported to the Interstate Commerce Commission and the passenger service cost per passenger one mile as determined likewise from the report to the Commission. I find that in equating on the cost basis, that in line 13-C I obtain a relationship in cost to the balance of the system of 75.80 percent which compares with the 76.14 on the first equation method.

By Judge Sop[illegible]:

Those figures are taken from currently complied mortgaged line costs which we make up for the information of our management and various committees. They are not published figures.

By Judge Way:

They follow the formula which has been worked out in receivership to determine what was the proportion of the mortgaged lines that were earning their way, but I have not complicated this sheet by bringing in all parts of that formula. I have only taken partial costs.

[fol. 2516] By Mr. Gwathmey:

I have applied that same system to those others and the final comparison can be made on line 13-C of each one of

them and 10-C; both of them are fairly uniform. The heavy density line, you might say, is in ratio to system cost of three-fourths of the system average. Then I take the line between Monroe and Atlanta which is just a little bit more than half as dense in traffic as the line between Raleigh and Weldon and I find that has a cost relationship to system average of 86.39 per cent on the three to one ration and 86.41 on the all expense basis. Then I pass to the main line between Savannah and Montgomery which has a traffic density in freight below the system average and in passenger very much below the system average and I show that per traffic unit on the 3 to 1 basis it costs us 140.24 per cent as much as the system average cost, that is line 9 item 10-C, and against line 13-C I show a relationship of 141.85 per cent. Then, this exhibit is calculated to serve a still further purpose. By the percentage of relationship indicated in column 7 and column 10. It is calculated to further show that those lines with heavy passenger density as well as heavy freight density have these fixed costs further diluted, don't you see, by spreading it over a larger base.

Now, Exhibit No. K-9 is a parallel exhibit to K-8 and [fol. 2517] covers the same lines, but for the calendar year 1932. My only purpose in putting in Exhibit K-9 is simply to show that whether you take 1933 costs or 1932 costs, your relationships are still there; they are not appreciably disturbed.

I had in mind giving an illustration which would bear on this item of capital costs. If you think it is worth while I could do it. If you will keep in mind that the Raleigh & Gaston by the partial costs was in relationship of approximately 76 per cent to the system, that the line between Monroe and Atlanta was in relationship of 86 per cent to the system, and that the low density line from Savannah to Montgomery was in relation to the system of 140 per cent, I would like to call attention to the fact that when I add to that the 5.75 per cent return on the reproduction cost, new, of those lines plus subsequent additions and betterments, I lower the relationship of the Raleigh-Weldon line from 76 per cent to 70 per cent; I lower the relationship of the line from Monroe, North Carolina from 86 per cent to 79 per cent; and, unfortunately, I have not got worked out the final figures on the low density line, but that will remain primarily the same, namely 140 per cent.

By Judge Soper:

The last figures were worked up by our valuation engineers. I did not put the investment figures on exhibits K-8 [fol. 2518] and K-9, but since you asked me the question about whether dense traffic may not make for higher unit investment cost particularly under certain conditions I just want to illustrate that certainly, as far as these lines are concerned, exactly the reverse is true.

By Mr. Gwathmey:

The proposition that I have been illustrating here would apply to the use factor even though the railroad was operated solely in freight service.

The studies covered by my exhibits K-8 and K-9 relate in the case of two of the sections to principal main line and in the case of the third section to a secondary main line. I have a similar study which deals specifically with branch line operations. I made up an exhibit very hurriedly and I did it largely because of an inquiry made from the bench the other day as to whether branch line operation does not entail features in operation which makes for very much higher than the system unit cost. I have chosen for this purpose four of our branch lines. If you will look at those four lines on my Exhibit K-10 and if you will just glance at this first map which I passed out sometime back, it will be seen that the first line with which I deal is the branch line from Bellwood, Virginia, to Hopewell, Virginia, a distance of 15.69 miles. Hopewell is about thirty miles south of Richmond and is one of the most important industries cen- [fol. 2519] ters in the State of Virginia. That line has been in operation for some four years and is operated exclusively in freight service. The next line which I used for illustration is what is known as our Roanoke and Tar River extending from Boykins, Virginia, to Lewiston, North Carolina, a distance of some thirty-two miles. The next line is the Durham line, which extends from Henderson, North Carolina to Durham, North Carolina, Durham being a very important manufacturing center, particularly as to tobacco. The next line I have used extends from Spencer, South Carolina on our Atlanta line to Great Falls, South Carolina, a distance of 21.49 miles. Using the same partial costs that I used on Exhibit K-8 and K-9. I developed for the Hopewell line that these costs are in relationship to the system

average partial costs of 161.81 per cent; that these same costs on the Boykind, Virginia-Lewiston line are in relationship of 529.64 per cent; that on the line between Henderson, North Carolina and Durham, these costs are in relationship of 299.04 per cent of the system costs; that on the line between Spence, South Carolina and Great Falls, South Carolina, these costs are in relationship of 586.39.

I am using those as illustrations of the extent to which branch line operations are more expensive than system operations and also to show how branch lines vary in costs. I have information in concrete shape which I can produce [fol. 2520] that will throw further light upon this question as one of the many factors contributing to the tremendously higher costs in branch line operations. I have prepared from schedule 561 of the Pennsylvania's annual report to the Interstate Commerce Commission for the year 1929, and from the Seaboard's report for the year 1933, a tabulation of all payments made to train and engine service employees of those two roads, which are made on a mileage basis. Let us use the Seaboard columns for illustration. In the first column headed "miles actually run," that means the miles each one of those employees actually served in transportation service during that year. In the next column headed "Miles paid for but not run," are entered the miles which the railroads are forced to pay in wages to the engine and train service employees to bring their mileage up to the minimum mileage which, under the standard contracts must be paid for. Now, passing to the last column, I want to call attention to just three or four percentage relationships. Taking the Pennsylvania Railroad "Road freight conductors, local and way freights," involved 12,043,044 miles actually run and 5,055,820 miles which were paid for but were not actually run. The ratio of the miles paid for and not run to the miles actually run was 41.98 per cent. Now, you will notice that the same percentage, around 41 per cent to 43 per cent applies against "Road freight brakemen and flagman, local and way freight," be- [fol. 2521] ing a 41.22 per cent ratio and "Freight conductors and motormen (local and way freight)" a ratio of 43.16. Road firemen and helpers local and way freight on this report. The relationship in miles paid for and not run to miles actually run by those classes of employees on the Pennsylvania Railroad was 16.28 per cent, whereas the same percentage comparison for the Seaboard is 7.63 per cent.

Now, take the point that perhaps I should have explained a little bit more at the outset that this mileage paid for and not run arises primarily on your feeder lines, where your train service can not be arranged so that you will get, in local freight service, as much as one hundred miles of train service per employe. For example, in the case of our line between Bellwood and Hopewell, Virginia, Hopewell being thirty miles south of Richmond, that place is served by trains operated from Richmond to Hopewell. The distance one way is thirty miles. The crew makes one round trip a day. I just wanted to give you that one illustration.

By Judge Soper:

It simply reflects branch line operations and shows at least in one respect why costs are higher on those side lines than they are on your main lines where you can utilize the time that you actually pay for in this class of employes.

By Mr. Gwathmey:

It is one of a great many illustrations of the tremen- [fol. 2522] dously increased cost of branch line operation as compared with the system as a whole. Twenty-three per cent of freight traffic expense of the Seaboard Air Line Railway is represented by terminal expenses as Mr. Lamb computed the terminal expenses yesterday. The corresponding figure in the case of the Pennsylvania is something in excess of 36 per cent.

These exhibits were prepared by me or under my supervision. They are true and correct to the best of my knowledge and belief.

Mr. Gwathmey: We offer the exhibits, Your Honors, and ask that they be received.

Cross-examination.

By Mr. Eshelman:

The density figures are for the year 1927 and they were taken from the only chart that I could get from you which was for that year. They cover only the traffic on the Pennsylvania Railroad that was dealt with in Doss Exhibit No. 25. On my Exhibit K-5 I do not show the traffic density by directions, that is the net ton miles per mile of road in one direction as compared with the other. I would have

been glad to show that if time had permitted but it was a hurried undertaking to get this map out and it was hard enough to apply it against the total density.

[fol. 2523] By Mr. Beach:

I mentioned passenger train density of the Baltimore & Ohio as being 550 percent more between Washington and Philadelphia than for the average for the system. That was based on 1924. I ride Baltimore & Ohio trains perhaps two or three times a month between Baltimore and Washington. I think that 1924 would be fairly representative as to relationships. What I was seeking to establish was merely the relationship of the passenger traffic over this section of the road as compared with your system as a whole. I admit that your passenger traffic, like passenger traffic of other roads, has declined somewhat. The unit that I used was passengers carried one mile per mile of road.

Mr. Gwathmey: We have now completed the testimony for the defendants except that I would like to file as a part of the record a certified copy of the report of the Interstate Commerce Commission in the proceedings known as Duplication of Produce Terminals, ex parte No. 109 reported at 188 I. C. C. 323; and the report of the Commission in "Practices of carriers affecting operating revenues or expenses—New York warehousing," Ex parte 104, reported in 198 I. C. C. 134.

[fol. 2524] Mr. Eshelman: I would object to them if they are offered as evidence.

Judge Soper: They can not be received as evidence, as I understand it.

Mr. Beach: It is understood that the two decisions of the Commission which are appended to our petition may be considered as being in evidence.

E. M. Albert, a witness on behalf of the petitioners, being recalled, in rebuttal, further testified as follows:

Examined by Mr. Eshelman:

Just before the petitioners rested their case on direct I identified my Exhibit No. 1. It relates to Kennedy Exhibit No. 1—Revised. Mr. Kennedy, in arriving at the operating expenses applicable to citrus fruit, indicated on sheet 2, line

21, has used the relationship between the gross ton miles of citrus fruit (line 16) to the total gross ton miles (excluding the locomotives and tenders and his estimate of non-revenue ton miles), line 15, and has applied such ratio to the operating expenses, freight service, line 14, which he considers to be applicable to citrus fruit alone. By this method he has made no deduction of the gross ton miles which correspond to the amount of expense, line 13, which [fol. 2525] he claims is deductible as not related to the movement of citrus fruit. This is illustrated by the deduction from freight expenses which Mr. Kennedy makes covering station platform and excess clerical expenses assignable to less carload traffic, line 10. The less carload traffic directly produces gross ton miles, but Mr. Kennedy has made no deduction of the gross ton miles so produced which corresponds with the expenses. The failure to make this and similar deductions results in reducing the ratio of gross ton miles of citrus fruit to the total gross ton miles, line 17, applicable to the net freight operating expenses shown by line 14. Had the proper deduction of gross ton miles been made, the ratio of citrus fruit, line 17, would have been increased, with corresponding increase in the expenses applicable to citrus fruit as indicated in line 21. This would also have increased the railway tax accruals applicable to citrus fruit shown by line 23. With these indicated increases in expenses and taxes, the net income, line 27, would have been reduced and probably wiped out. On sheet 4, item 10, "deductions—revenues from operations" Mr. Kennedy has assumed that the revenues represent the operating expenses. This in my opinion is an error, first, in principle, in that revenues are presumed to exceed expenses; and second, that there are revenues in these groups that relate to services which do not increase the expenses which [fol. 2526] would be incurred if no revenue were received.

F. H. Clark, a witness on behalf of the petitioners, being recalled in rebuttal, testified as follows:

Examined by Mr. Eshelman:

Just before the petitioners rested their case on direct—I identify two exhibits as Clark Exhibits C-4. I have prepared a statement explanatory of this exhibit which is as follows:

Mr. Kennedy served upon the Northern Lines a Revised Exhibit #1 and to the extent practicable I have also shown the effect of using freight car miles in lieu of gross ton miles as used by Mr. Kennedy in his Revised Exhibit #1, as introduced. For purposes of identification, the items in my Exhibit C-4 are entitled to correspond generally with those in Mr. Kennedy's Exhibit #1.

My Exhibit C-4 is summary statement on one sheet.

I have merely taken the total operating expenses—freight—shown in Kennedy's Exhibit (line 1), which are the same as used in Mr. Hodkinson's Exhibit 1, then taken the total deductions from operating expenses shown in lines 4 to 10, inclusive, of the Kennedy exhibits, made the same adjustments of revenue and expenses made by Mr. Kennedy in [fol. 2527] line 11 and 12 and arrived at the same net freight operating expenses applicable to citrus fruit shown by Mr. Kennedy in line 14.

I then substituted "freight car miles" for gross ton miles where used by Mr. Kennedy and arrived at the proportion of operating expenses assignable to citrus fruit on the basis of freight car miles.

I then followed Mr. Kennedy's method of assigning railway tax accruals to citrus fruit, added refrigerator car rental and arrived at total operating expenses, taxes, and car rental—citrus fruit—on the basis of freight car miles in lieu of the same total arrived at by Mr. Kennedy on the gross ton mile basis, in line 25 of his exhibits.

The total revenues—north and south of Richmond as divided under the Commission's decision, were then shown by me for the P. R. R., B. & O., and R., F. & P., just the same as were shown by Mr. Kennedy, and I also added the same data for the A. C. L. and S. A. L. arriving at the net income for Northern and Southern on the freight car mile basis comparable with that arrived at by Mr. Kennedy by the use of the unit of system gross ton miles.

My statement shows relative net income north and south on the car mile basis—selected accounts—same as used by Mr. Kennedy, as follows:

[fol. 2528]

B. & O.	$ 17,820	(Kennedy, as information)	$21,380
P. R. R.	51,971		95,219
R., F. & P.	81,929		66,239
A. C. L.	1,274,000		
S. A. L.	831,634		

Mr. Kennedy's Revised Exhibit #1 differs from his original exhibit, principally in that he has there excluded from total gross ton miles the non-revenue gross ton miles.

"Railway tax accruals" as shown in the revised Exhibit #1 are also different, apparently being calculated on the gross ton mile basis.

The non-revenue car miles, comparable to the non-revenue ton miles, which were excluded by Mr. Kennedy, were not available to me, and I could not, therefore, make my Exhibit comparable to his revised exhibit in that respect. I did, however, recompute "railway tax accruals" assignable to citrus on the basis of freight car miles instead of on the basis of operating expenses, which I understand to be comparable with the method of computing railway tax accruals used by Mr. Kennedy in his revised exhibit.

The relative *net income* for the northern and southern roads shown on my statement as the result of this recomputation is as follows:

B. & O.	$ 16,774	(Kennedy, as information)	$21,380
P. R. R.	34,686		95,219
R., F. & P.	72,422		66,239
A. C. L.	1,224,155		
S. A. L.	813,173		

[fol. 2529] There was also identified as my Exhibit C-5 a statement which was intended as rebuttal to an exhibit distributed to petitioners by the intervening defendants relating to the number of trains out of Potomac Yard and certain information in regard to those trains. There is on this exhibit independent of its reference to the Kennedy exhibit certain information which I desire to place before the Court.

I have resolved the adjusted tons as indicated on the exhibit submitted by the defendants, to flat tons, and under the heading of "Pennsylvania Railroad for the period December 7 to 13, 1928", under "Gross tons per train", the adjusted tons of 2,481 became 2,192 which it will be noted is less than the system average of 2,362. Likewise, for the Baltimore & Ohio Railroad, the 2,013 becomes 1,703 flat tons, considerably less than the system average of 2,011 for that period. The 2,350 adjusted tons for the Pennsylvania Railroad becomes 2,083; for the Baltimore & Ohio the 1,848 adjusted tons becomes 1,569, making a considerable difference

in the relationship of the total in trains out of Potomac Yard when compared with the system on the exact basis. The exhibit submitted by the defendants also does not take into consideration the fact that it is the practice to double-head the arranged service trains to a great extent out of Potomac Yard. In fact, the record will show that in the season 1928-1929 approximately 65 per cent of the arranged [fol. 2530] service trains were doubleheaded out of the Potomac Yard over the Pennsylvania Railroad. The underlying data which was submitted this morning for inspection indicates that all the trains were not taken in making up the exhibit of the defendants. As examples, for the Pennsylvania Railroad on December 7, 1928, extra No. 2730 was not shown. This train was dispatched light from Potomac Yard and picked up its train at Benning yard, which is some four or five miles beyond Potomac Yard in the City of Washington. On December 8, 1928, a like situation existed for extra train 2234, and on December 9, extra train 257 and on the same date, December 9, extra 1474 is shown on the underlying data to contain one car dispatched from Potomac Yard. This train was filled out at Benning yard. That is typical of the whole, as I understand the exhibit and according to my check of the records.

I was a witness in the case before the Commission, Docket 24160, with respect to the division of the rates on fruit other than citrus and vegetables, and in that case I had occasion to prepare an exhibit which dealt with the balance of movement north and south or east and west on the Pennsylvania, that is in the section north of Potomac Yard to New York, for consideration in connection with an exhibit of the same type which was prepared by witness Hix of the Seaboard Air Line. The result of that study shows a much more unbalanced movement as measured by relation of empty to [fol. 2531] loaded cars on the Pennsylvania Railroad than on the Seaboard Air Line.

I prepared a statement based upon the records at Potomac Yard of the cars of citrus fruit forwarded from Potomac Yard via the Pennsylvania Railroad and the Baltimore & Ohio Railroad for the shipping seasons ending June 1930, 1931, 1932, 1933, and 1934 but with the beginning of the first season commencing on November 23, 1930, so as to cover the period involved by the retroactive portion of the Commission's order in the citrus divisions case. This

is the exhibit which I prepared and it is true and correct to the best of my knowledge and belief. (Introduced in evidence and marked Clark C-6.)

I have heard the suggestions of certain witnesses for the intervening defendants to the effect that operating costs are less on the Pennsylvania's lines north from Potomac Yard to the principal destinations to which citrus fruit is transported by it. I have made a check of said transportation costs on the divisions which more particularly lie along the route of movement from Potomac Yard northward to those destinations with a view of determining whether or not my statement of figures in my Exhibit C-1 for the eastern region were sound for application in this case. I found that that restricted route cost 14.2 per car mile for the net transportation expenses alone as compared with 11.59 for [fol. 2532] the Eastern region—New York zone, Pennsylvania Railroad portion combined, including all operating expenses.

Cross-examination.

By Mr. Gwathmey:

Adjusted tons are the actual tons in the train behind the locomotive, plus a car factor as explained by Mr. Menaugh. That car factor out of Potomac Yard is five. Practically all of our yard records are on adjusted tons. In fact, the loading of trains by the Pennsylvania Railroad are adjusted tons. The record is kept that way because the locomotives are rated adjusted tons. In other words, you would have no comparable factor of your train tons if you did not add the effect that has already been taken care of in the rating assigned to locomotives.

Redirect examination.

By Mr. Eshelman:

The point of that exhibit is that in my comparison there was corrected an inadvertent action apparently on the part of our southern friends in comparing the system unit of flat tons as against adjusted tons out of Potomac Yard which included this factor for rail resistance, and so forth.

[fol. 2533] Mr. Beach: I asked Mr. Tassin this morning whether it was not a fact that revenue per ton mile would

be the same between two points whether there were ten tons in the car or thirty tons in the car, providing the rate was the same. He said no. We got together during one of the recesses and we find that we are in agreement and that my question was correct.

E. A. HODKINSON, being recalled in rebuttal on behalf of the petitioners, further testified as follows:

Examined by Mr. Beach:

I do not recall that I gave any reason for not making a special cost study, but I did express the view that even if you did undertake to make a special study and studied every train containing citrus fruit or citrus fruit and other perishable traffic, that you could only get with any degree of accuracy your train operating costs and you would still have to make some assumptions as to the various other accounts as to just how much of those accounts should be charged to the citrus traffic. It is further my opinion that if Mr. Lamb and myself collaborated in making a statement of that kind, and that Mr. Tassin and Mr. Albert also made a statement at the same time we made ours, each of us acting independently of the other, that when we came to make a final [fol. 2534] figure there would probably be two or three dollars difference per car between us. I think it is well recognized by every accountant in the country that you cannot positively determine the expense of handling any particular commodity.

In the course of his testimony the witness Kennedy indicated that I should have increased somewhat my investment figure by including Cash Materials and Supplies on the assumption that that is correct. For the Baltimore & Ohio for the year 1929, Cash Materials and Supplies aggregated $37,484,093. For the Pennsylvania Cash Materials and Supplies, and this figure includes the West Jersey & Seaboard, $69,776,865. If he is correct that those figures should be added and that the amounts he suggested in our agreed accounts should be deducted, one would about offset the other so far as those two roads are concerned. Of course, still to be fair, you should compare like with like and you would have to make a similar adjustment for the southern

roads. I have had considerable traffic experience along with my accounting and statistical experience. I think I have had just about as much traffic experience as I have accounting experience. Whether a revenue ton mile means anything at all in connection with determining the remunerative character of light loading traffic is not a factor that should be taken into consideration in determining the reasonableness of rates, especially in so far as light loading commodities are concerned because, as I have stated before [fol. 2535] and Mr. Tassin has stated today, if you have the same length of haul and the same rate even if there be two different commodities, if you have ten tons in one car and thirty tons in another car, your net ton mile revenue remains the same, so that while on the face of it a net ton mile revenue may show up fairly large, when you come to the thing that the railroad is principally interested in, and that is its per car revenue, then the per car revenue is small. And I think it is well recognized as a matter of fact, the traffic that pays the railroad the best is very low as far as ton miles earnings are concerned, but very high as far as car miles earnings are concerned. So, when you get to commodities like citrus fruit, hay, live-stock and other perishable commodities, the only proper unit to use, it seems to me, in determining or making any comparison or giving any consideration to the reasonableness of the rate to be charged, is the car mile basis. I believe that view is entertained by traffic men generally. I have never heard any traffic men express any different view and I have heard quite a number of them support it most vehemently. One of the best qualified traffic men in the country has expressed himself that when it comes to light loading commodities, particularly, ton mile revenues mean absolutely nothing.

Mr. J. G. Kerr is assistant to the vice president in charge [fol. 2536] of traffic of the Louisville & Nashville Railroad and it is my honest belief that Mr. Kerr is one of the best informed traffic men in these United States. I heard Mr. Doss' testimony in regard to the effect of the application of the short line formula on the matter of the practical handling of freight in the South. I accept Mr. Doss' statement that his actual haul in the South is in excess of the short line mileage from point of origin to destination. That holds equally true insofar as the situation in the North is concerned. Our so-called short line mileage in the North

are computed in accordance with the formula laid down by the Interstate Commerce Commission, As to many of those mileage there would never be a case where the car would actually move over that particular route. As an example, the short line miles from Cleveland to Buffalo are made part of the way over the New York Central, then the Nickel Plate, New York, Chicago & St. Louis, would get it for a short portion of the haul and then the car would go back again to the New York Central. It is inconceivable that there would be any situation under which the New York Central would originate the car, turn it over to the Nickel Plate for a two mile haul, and then get it back from the Nickel Plate. In connection with some of the other so-called short line routes I have found examples where a shipment would originate on the B. & O., start with the B. & O., then go on a connecting line, back to the B. & O., another con- [fol. 2537] necting line and you would be on and off the line of the Baltimore & Ohio two or three times before you finally constructed the short line mileage but I haven't any definite figures insofar as the difference or shrinkage in the South as between their actual transportation performance and the short line mileage. Neither have I any definite figures as to citrus fruit traffic particularly as between the miles of transportation service actually performed by the northern lines and the short line mileage but in connection with other cases there have been made voluminous traffic studies and I have been accumulating those traffic studies with the view of determining as accurately as I could just what was the difference between the short line miles and the transportation service actually performed. In the Salt case I made a traffic study covering six months' movement. On Ferrous metals movement we covered four months. In the Vegetable Oil Case we covered a four months' movement. In the Fertilizer Case, Wood Pulp Case and Lumber cases I have also made voluminous traffic studies and in all of those studies I have made a comparison of the miles the cars were hauled by the route of movement as compared with the short line distances. The aggregate of these separate studies to which I have referred covers thousands of cars and the average picture is that the use of the short line mileage only gives the eastern carriers eighty-five per cent [fol. 2538] of the mileage which is actually used in the transportation of those shipments. The Commission in this

case in fixing its factors stated specifically that they were to be used in connection with these short line distances.

In the New England Divisions Case, 126 U. C. C. 579 at 614, the Interstate Commerce Commission said this: "But densities per mile of road do not tell the whole story, in view of the higher capital expenditure entailed by greater density as well as the greater difficulties of operation which are often encountered, particularly at large terminals." I have with me figures showing the investment per mile of line for the class one carriers in the southern region as compared with the similar investment for class one carriers in the eastern district. The class one carriers in the southern district, the investment per mile of road was $82,785, for the eastern district it was $183,366. That is more than twice the amount of investment per mile of road in the southern region. For the five southern roads, the complainants in Docket No. 24,069, namely, the Seaboard, Atlantic Coast Line, Southern, Florida East Coast and Tavares & Gulf the investment per mile of road was $76,669. The Tavares & Gulf, as I recall, is not a class one carrier. For the nine principal defendants in Docket No. 24,069, including the Reading, Central of New Jersey, Boston & Maine, New Haven, Pennsylvania, B. & O. and D. & H. it [fol. 2539] was $199,239.

In the Southwestern Divisions Case before the Commission this expression occurred: "Moreover, the significance of traffic density can easily be overemphasized. It is not shown that expense of operation by any means decreases in ration to increase in traffic density. Indeed, it is probable that the chief benefit of a heavy density is that overhead costs, such as return on investment, are lower per unit of traffic." I subscribe to that statement. I think the density may at times add to your expense, especially when it comes to a matter of interference with your train operations. The statement: "So far as traffic density having an effect upon cost or burden of service, that effect must be reflected in the statistics showing results of operations," is correct, common sense.

By Judge Soper:

If you are considering such a busy line as that between Washington and New York on the Pennsylvania it is true

that the more trains you run over that line the lower cost per train derived from the wear and tear of the elements. That would not tend to bring down the car mile costs on that line below the average unit car mile cost. You would still have your total maintenance expenses. I have said that we have very expensive terminals on a certain line and that line is particularly used by certain kinds of traffic that tend to increase the cost per car mile arising from investment in [fol. 2540] that particular thing. If that be true the reverse is true, namely, that if there is a uniform cost, no matter whether we are using it once an hour or twenty times an hour, that uniform cost is divided among more units and therefore the cost per unit is diminished. The separation between usage and weather conditions relates to the total account. That total account has been taken into consideration in all of my calculations when it comes to determine the average cost on all freight.

Q. But then you are overlooking the fact that this particular traffic as to which we are trying to get the cost makes more use of this particular line than the traffic does generally of all lines?

A. That would come very clearly into the picture, Your Honor, if you were trying to determine the actual expense of this particular traffic. Then your variation as between use and weather deterioration would enter into the picture.

I am trying to develop that we have an average figure for handling the average car one mile. That is as far as I can go. I can not determine the actual cost of any particular commodity and the only reason that we would have to consider the maintenance of way, if you please, as between use and weather deterioration would be in connection with a specific cost study for a specific commodity, and whether [fol. 2541] citrus fruit uses the facilities of maintenance and road more than any other commodity, that really wouldn't have any effect.

Mr. Beach: If I understand the question it is if you have a certain amount of maintenance expense on this particular line to be divided among so many units of traffic, obviously if you are going to divide it among 100,000 cars it is going to be less than if you divide it among 70,000 cars.

By Judge Soper:

I agree with Mr. Knight with respect to the fact that there are certain costs that are there without respect to the amount of traffic, namely wear and tear.

Q. Doesn't that tend the other way from the result which you indicate is your final result?

A. The total expenses are greater, Your Honor.

By Mr. Beach:

Turning to my Exhibit No. C-19, there are four bases submitted on which expenses have been computed. My exhibit has been predicated on the car mile basis and I included all accounts as far as expenses were concerned. Mr. Kennedy submitted a study which was predicated on the gross ton mile basis for selected accounts. He eliminated quite a number of accounts when it came to determining his expenses assignable to freight. He took out expenses in connection with less than carload traffic, for example, coal and ore. Mr. [fol. 2542] Clark introduced an exhibit which is on a car mile basis and he used selected accounts, that is to say he deducted the expenses for the accounts which Mr. Kennedy [fol. 2543] has deducted from his exhibit and I put in a further exhibit on the gross ton mile basis for all accounts. We have determined the total freight car miles or total gross ton miles, as the case may be, figured the investment unit on a system basis, either per car or per gross ton mile, computed the amount required to produce a five and three-quarter per cent return on the investment, shown under the column headed "Net income" the amount which is available for return on investment and in the last column of the exhibit I show the percentage of return. On a car mile basis the Pennsylvania Railroad and the R., F. & P. have a deficit, that is they have absolutely nothing left for return on their investment. The Baltimore & Ohio have a rate of return of 4.42 per cent. Using exactly the same yardstick for both the northern and the southern carriers, the Atlantic Coast Line, on the basis of the car mile cost or expense gets a percentage of return of 15.43 and the Seaboard Air Line 10.45. On the basis of the Kennedy gross ton mile exhibit neither the P. R. R. or the R., F. & P. receive a five and three-quarter per cent return.

By Judge Soper:

I am now at the very bottom block of the exhibit. It is my purpose here to contrast the returns between the northern group and the southern group, no matter what system of calculation is used. I am trying to point out that no matter whether the Court prefers Mr. Kennedy or Mr. Hodkinson, [fol. 2544] still taking the extreme, the southern roads are still getting a good thing out of it. Under the Kennedy method rate of return to the P. R. R. is 3.26 return, to the R., F. & P. it is 4.81 per cent while to the B. & O. it is 7.63 per cent. The Atlantic Coast Line's rate of return is 9.74 per cent and the Seaboard Air Line 9.62 per cent and it should be pointed out, of course, that the B. & O. handled a comparatively small proportion of this traffic as compared with the Pennsylvania Railroad. To visualize the thing a little more clearly, I have on the second page of the exhibit shown the adjustment that is necessary to produce a five and three-quarter per cent return. Taking the Kennedy gross ton mile basis which represents the extremes between the two bases that have been submitted to Your Honors, the amount required to produce five and three-quarters per cent return on the investment for the northern lines is $263,216. We have got to have that much money. $263,000 required and $182,000 available if the difference between expenses and revenue. Those figures were taken from the exhibits. The figures under the column "Available" mean the difference between the expenses, plus car rental and taxes, and the revenue which would accrue under the Commission's decision. The deficiency for the northern lines is $80,378. The Atlantic Coast Line and Seaboard Air Line, after receiving the five and three-quarter per cent return of their invest- [fol. 2545] ment, have a surplus of $650,380. If you adopt Mr. Kennedy's gross ton mile basis these will be the actual figures. And we would still be short $80,000 of making five and three-quarters per cent and they could pay us that $80,000 and still have $570,000 over and above the five and three-quarters per cent return. On the basis of the car mile unit the deficiency is $329,553 for the northern lines. The surplus for the southern lines is $989,592. The southern lines could pay the northern lines this $329,553 and still

have $660,040 left over and above the five and three-quarters per cent return.

By Judge Way:

I seriously mean to tell the Court that the southern railroads are making a profit of $950,000 on this citrus fruit traffic.

Mr. Beach: We are assuming that each car mile is going to bear a certain proportion of that overhead and the amounts set apart for each line are their proportion based on that formula. We don't mean to say that the Seaboard is making money.

Cross-examination.

By Mr. Gwathmey:

I have not any figures which will show the traffic units per $1000 of investment for the Southern as compared with the [fol. 2546] Eastern railroads. I recall that in the case before the Commission use was made, both in the record and by the Commission in its report, to certain selected southern roads and certain selected eastern roads. In Exhibit No. 92 filed by Mr. Lamb shows for the five southern roads and the seven selected eastern roads the traffic unit per $1000 of investment for the year 1929 and the excess for the east over the south. I would be willing to accept his figures, and the excess appears from this exhibit to be 67.87 per cent. That is the excess of the East, including the seven selected roads, over the South, using the five selected roads on the well known three to one ratio.

I have spoken of a great many cases in which I and others have used the so-called short line mileage. Those were cases which involved the reasonableness of rates. They did not involve the reasonableness of divisions and they did not bring in the issue of confiscation.

By Mr. Beach:

In both instances, both North and South, it would have a decided tendency to understate rather than overstate our cost, because you are actually hauling the traffic a longer distance than the particular mileage that you are using. My

attention was directed to the fact that at Washington, for example, the Baltimore & Ohio has a distance of six miles from Potomac Yard to Washington on the citrus fruit. When it comes to the actual transportation service the Bal- [fol. 2547] timore & Ohio performs twenty miles of service to effect that delivery.

OFFER IN EVIDENCE

Mr. Beach: I asked the Commission when they made up this record to supply me with a copy of the minute of the Commission showing the vote denying our petition. I would like to offer that in evidence. I have no copies but in order that all may be advised of what it contains I will read it:

"Sub. 832. At a General Session of the Interstate Commerce Commission, held at its office in Washington, D. C., on the 14th day of May, A. D. 1934. William E. Lee, Balthasar H. Meyer, Clyde B. Aitchison, Frank McManamy, Claude R. Porter, Patrick J. Farrell, Hugh M. Tate, Charles D. Mahaffie, Carroll Miller, Commissioners. Atlantic Coast Line Railroad Company et al. v. Arcade & Attica Railroad Corporation et al., No. 24069. In the matter of Divisions of Joint Interterritorial Rates between Official and Southern Territories, No. 24160. Second petition for rehearing, reconsideration and reargument in behalf of defendants and cross-complainants in No. 24069, and in behalf of respondents within Official Territory in No. 24160, denied; Commissioners Aitchison, Farrell, Mahaffie and Miller voting to grant."

I introduce that for the reason that it indicates that our [fol. 2548] second petition was at least sufficiently persuasive so that one of the Commissioners who had previously voted with the majority thought he would like to have another look at it and the new Commissioner who had never theretofore voted on the matter voted to grant.

Judge Soper: How many were present?

Mr. Beach: Nine.

Judge Soper: Is Mr. Eastman on it?

Mr. Beach: He is Coordinator of Transportation and Mr. Brainard, of course, has left the Commission.

[fol. 2548a] Certificate to attached paper omitted in printing.

[fol. 2548b] BEFORE INTERSTATE COMMERCE COMMISSION

Stipulation Re Use of Statistics of Carriers on File with Commission

* * * * * * *

Examiner Hosmer: You have no other witnesses, Mr. Beach?

Mr. Beach: No other witness at this time, Mr. Examiner.

Examiner Hosmer: Letters have been received from Mr. Beach and Mr. Gwathmey with respect to a stipulation that the Commission may consider in evidence in this case the annual reports of the carriers who are parties to the case for the years from 1926 on.

Mr. Gwathmey's letter says 1926 to date, Mr. Beach's 1926 to 1930.

Mr. Beach: 1926 to date is satisfactory to me, Mr. Examiner.

Examiner Hosmer: Yes; I think it might be well to have an understanding that that will include such annual reports as may be filed until the case is finally disposed of.

Mr. Beach: That is right.

Examiner Hosmer: 1932 will be in soon.

Mr. Beach: I think it is desirable to have the latest information on the subject.

I think it should be further understood that our statements here are applying to both Dockets 24069 and 24160.

Examiner Hosmer: That is my understanding.

Mr. Gwathmey: That is satisfactory to me.

Examiner Hosmer: Let the record show that the parties are agreeable to the suggestion that a statement of certain data from the Commission's annual reports which [fol. 2548c] are likely to be used in the final determination of the case will be served on counsel in due course for their examination and check, for the years 1926 up to date.

Mr. Beach: And I would like to connect it up with Appendix 6 in my exceptions in Docket 24069 and 24160.

Examiner Hosmer: Yes. Of course, they will be available for such use as you made of them in your exceptions.

[fol. 2549] Certificate to attached papers omitted in printing.

[fol. 2550] December 22, 1933.

Mr. E. L. Beach, c/o Baltimore & Ohio R. R. Co., Baltimore, Md.

Mr. F. W. Gwathmey, Shoreham Building, Washington, D. C.

GENTLEMEN:

In my letter of November 6, 1933, addressel to you jointly, referring to No. 24069, and No. 24160, the Citrus Divisions Case, and enclosing copies of Exhibit No. 358½, I said:

The exhibit has been carefully prepared and checked, but if your examination discloses any errors we shall be glad to have them brought to our attention.

Mr. H. M. Bassett of the New York Central lines has pointed out to us a number of figures in the exhibit which he considers erroneous, and these have been investigated. That investigation fails to convince us that any changes in the figures should be made except with respect to those for "Book investment in road and equipment (including lessors)" relating to the New York Central. Accordingly the investment figures for that carrier have been modified as follows:

Page 1 (1928) $1,474,467,714 [5]

[5] Includes Ottawa & New York, $2,727,999.

Page 3 (1929) $1,506,387,142 [5]

[5] Includes Chicago, Kalamazoo & Saginaw and Ottawa & New York.

Page 5 (1930) $2,166,977,786 [5]

[5] Includes Canada Southern, $37,369,997, and Ottawa & New York, $2,727,999.

Page 7 (1931) $2,177,814,073 [5]

[5] Includes Canada Southern, $37,627,100 and Ottawa & New York, $2,727,999.

Page 9 (1932) $2,176,843,576 [5]

[5] Includes Canada Southern Ry., $37,387,176 and Ottawa & New York, $2,727,999.

Yours very truly, —— ——, Examiner.

Copy to Mr. H. M. Bassett, c/o New York Central R. R. Co., New York, N. Y.

[fol. 2551]

EXHIBIT No. 358½

Interstate Commerce Commission.

Bureau of Statistics

Authorized by stipulations of counsel per correspondence.

Received in evidence.

Divisions of Joint Rates on Florida Citrus Fruit to Official Territory (Dockets 24069 and 24160). Investment, Revenues, Expenses, Net Railway Operating Income and Ton-miles of Revenue Freight Eastern and Southern Territories, 1928–1933

1928

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Eastern District including Pocahontas Region:						
Akron, Canton & Youngstown	$13,161,730	$722,461	$3,515,809	$22,217	$86,397	182,194
Ann Arbor	23,897,780	935,312	5,585,125	380,548	522,316	557,068
Atlantic & St. Lawrence	10,731,858	d 988,351	2,015,416	516,803	693,487	159,171
Atlantic City	15,924,870	d 721,387	1,425,174	2,307,611	2,552,559	39,886
Baltimore & Ohio	906,818,890	49,387,716	202,489,657	34,329,024	38,093,239	20,243,199
Bangor & Aroostook	34,674,842	1,899,190	6,270,732	928,490	1,080,093	275,077
Bessemer & Lake Erie	65,274,209	5,207,732	15,583,181	211,555	823,762	2,146,487
Boston & Maine	265,850,096	12,802,969	52,518,647	24,105,591	20,992,783	2,893,844
Buffalo & Susquehanna	11,758,727	321,448	1,576,868	56,115	93,382	143,172
Buffalo, Rochester & Pittsburgh	74,300,056	2,787,638	15,659,022	1,307,482	2,063,483	1,789,445
Cambria & Indiana	8,952,546	630,500	1,214,782	5,070	15,505	62,442
Canadian Pacific Lines in Maine	8,825,619	d 319,991	2,060,734	492,143	683,713	245,825
Canadian Pacific Lines in Vermont	700,000	d 1,120,737	1,344,787	693,138	927,200	112,077
Central R. R. of New Jersey	203,900,605	9,385,057	46,889,898	11,112,159	12,350,816	2,846,679
Central Vermont	31,903,253	1,281,954	6,094,055	1,509,770	1,509,052	453,093

Chesapeake & Ohio	418,219,433	36,323,594	115,030,177	9,794,995	11,753,848	18,186,580
Chicago & Eastern Illinois	87,114,979	2,200,674	19,644,517	5,249,056	4,538,348	2,121,803
Chicago & Erie	34,941,999	1,612,949	13,226,375	1,658,248	1,686,590	1,665,571
Chicago & Illinois Midland	10,084,521	530,716	2,622,323	114,277	253,168	207,472
Chicago Detroit & Can. Gr. Trunk Junction	5,343,311	1,834,050	3,970,771	42,670	132,751	172,355
Chicago, Indianapolis & Louisville	53,492,039	2,696,936	15,285,273	3,095,733	2,699,839	1,535,868
Cleveland, Cincinnati, Chicago & St. Louis	326,975,812	15,622,538	68,467,336	20,362,816	17,123,292	8,125,385
Cincinnati Northern	10,198,823	670,291	3,943,997	117,796	190,620	597,834
Delaware & Hudson	131,740,221	7,662,966	34,798,937	5,430,778	5,704,004	3,298,301
Delaware, Lackawanna & Western	294,119,903	17,119,225	62,514,327	18,620,854	14,990,750	4,534,643
Detroit & Mackinac	7,885,331	330,088	1,416,713	252,030	351,480	96,862
Detroit & Toledo Shore Line	9,727,890	1,143,275	4,873,358	.....	.....	375,153
Detroit, Grand Haven & Milwaukee	20,189,797	1,868,318	8,852,519	510,870	688,403	507,785
Detroit Toledo & Ironton	52,441,971	2,635,598	11,011,275	96,561	416,563	723,194
Elgin, Joliet & Eastern	56,931,295	3,730,959	24,601,973	267	65	1,712,465
Erie	499,862,400	18,434,211	92,826,160	17,265,760	18,293,524	8,841,167
Evansville, Indianapolis & Terre Haute	4,838,935	d 495	1,693,947	70,741	128,201	225,137
Grand Trunk Western	55,321,805	3,413,095	18,935,692	3,143,362	3,139,931	1,485,042
Hocking Valley	62,040,066	5,624,746	19,840,600	960,632	1,241,766	2,996,102
Illinois Terminal	8,508,561	1,189,638	4,780,555	1,958,125	1,811,136	231,646

d Deficit.
[1] Plus cash, material and supplies.
[2] As reported in headnote to schedule 200 A of the annual report.
[3] Separated on basis of car-miles.

EXHIBIT No. 358½—Continued

1928—Continued

Territory and road	Book investment in road and equipment' (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Eastern District including Pocahontas Region—Continued						
Lehigh & Hudson River	7,698,221	522,024	2,703,904	118,943	177,205	356,057
Lehigh & New England	21,389,615	1,211,313	5,344,633	47,779	80,016	369,978
Lehigh Valley	269,812,099	12,315,126	61,013,440	10,921,631	9,663,382	5,137,674
Long Island	135,300,936	7,542,459	12,247,391	28,285,181	19,593,039	180,095
Maine Central	69,347,152	2,704,327	14,536,866	4,765,033	4,798,112	825,878
Michigan Central	269,106,740	23,155,967	66,299,808	26,917,685	17,051,695	4,522,459
Missouri-Illinois	4,053,297	227,460	1,237,322	34,827	29,921	89,044
Monongahela	28,030,250	1,942,474	6,983,703	207,458	414,880	613,780
Montour	9,589,379	646,813	1,720,912	73	2,358	90,394
New Jersey & New York	3,812,496	d 248,228	371,936	1,211,449	1,121,704	4,794
New York Central	1,474,467,714	62,222,122	244,640,871	137,092,373	93,314,284	22,201,886
New York Chicago & St. Louis	227,570,179	9,556,897	50,136,312	2,740,207	4,048,674	4,989,228
New York Connecting	28,683,610	1,068,920	2,482,778	374,963	40,967	111,872
New York, New Haven & Hartford	457,738,313	29,238,404	77,489,054	60,143,999	40,850,574	3,886,042
New York Ontario & Western	97,900,671	913,577	8,565,031	4,085,686	2,542,208	778,348
New York Susquehanna & Western	39,667,073	459,551	4,144,728	812,295	1,339,621	113,199
Norfolk & Western	445,457,399	34,204,058	98,613,560	8,333,551	10,234,725	15,015,685
Pennsylvania	2,372,841,205	117,297,686	474,404,646	176,162,670	139,503,888	44,989,625
Pere Marquette	152,858,437	10,596,357	41,107,601	4,653,967	4,722,000	3,387,646
Perkiomen	3,996,655	314,497	1,228,952	71,533	136,398	80,605
[fol. 2552]						
Pittsburgh & Lake Erie	129,725,817	7,770,829	28,569,188	2,837,628	3,748,269	2,434,830
Pittsburg & Shawmut	13,824,188	516,712	1,828,255	55,006	100,973	159,198

Pittsburgh & West Virginia	46,032,904	2,218,718	4,382,195	90,828	155,074	197,278
Pittsburgh, Shawmut & Northern	26,150,878	285,656	1,878,088	38,521	117,500	178,219
Port Reading	5,687,925	76,456	2,365,220	.....	.....	76,997
Reading	394,251,039	17,098,849	79,071,580	10,868,454	14,038,485	6,409,648
Richmond, Fredericksburg & Potomac	34,176,144	2,011,878	5,679,887	5,355,546	3,760,192	413,633
Rutland	28,636,260	940,883	3,820,204	2,806,078	2,387,616	238,912
Staten Island Rapid Transit	13,060,041	349,650	1,528,466	1,599,195	1,675,082	22,227
Ulster & Delaware	6,466,266	64,098	505,287	667,147	607,618	25,285
Virginian	153,123,085	7,096,053	17,916,798	563,320	1,004,044	2,571,290
Wabash	290,484,271	11,950,039	60,715,814	10,357,177	10,231,370	5,558,199
Western Maryland	155,576,482	5,250,619	17,938,886	653,671	1,313,204	2,160,534
West Jersey & Seashore	31,665,319	970,614	4,935,026	5,549,072	5,109,767	165,789
Wheeling & Lake Erie	91,833,249	4,975,836	20,241,822	463,842	700,634	1,724,215
Southern Region:						
Alabama Great Southern	36,393,889	2,538,423	7,796,294	2,314,016	1,935,075	802,676
Atlanta & West Point	7,076,423	316,310	2,090,048	983,869	901,063	118,451
Atlanta Birmingham & Coast	25,631,027	d 188,371	4,194,078	604,091	958,686	338,024
Atlantic Coast Line	299,789,537	9,895,364	53,434,602	17,958,572	17,874,489	3,313,824
Central of Georgia	106,581,099	4,449,824	19,735,240	5,397,726	5,855,832	1,554,074
Charleston & Western Carolina	12,179,962	546,528	3,060,380	219,513	423,800	247,966
Cincinnati New Orleans & Texas Pacific	72,144,859	4,917,528	17,401,297	4,230,429	3,796,676	1,634,759
Clinchfield	74,513,053	3,000,430	6,587,369	282,752	339,379	725,847
Columbus & Greenville	3,080,156	133,978	1,529,238	300,338	414,515	81,961
Florida East Coast	123,651,343	1,426,619	8,036,936	5,837,787	5,142,179	449,949
Georgia & Florida	20,764,826	146,664	1,401,200	215,376	393,630	81,009
Georgia R. R. Lessee Organization	17,119,174	912,939	4,264,525	1,006,803	1,080,024	332,126

d Deficit.
[a] Separated on basis of car-miles.
[c] Includes Canada Southern, $34,848,466.
[b] Includes Ottawa & New York, $2,727,999.

EXHIBIT No. 358½—Continued

1928—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Southern Region—Continued						
Georgia Southern & Florida	16,931,780	435,950	2,909,186	1,610,123	1,678,487	237,770
Gulf & Ship Island	16,976,494	d 70,194	2,721,116	587,085	862,369	202,394
Gulf, Mobile & Northern	36,077,073	1,300,332	6,959,268	551,082	1,027,438	660,913
Illinois Central	624,374,065	25,761,835	122,970,568	29,599,015	28,481,237	14,003,458
Louisville & Nashville	475,317,663	22,205,053	111,966,546	23,671,912	22,547,115	12,920,717
Louisville, Henderson & St. Louis	17,812,022	382,201	2,561,250	689,350	772,825	309,944
Macon, Dublin & Savannah	3,832,121	84,298	724,360	56,622	41,501	43,372
Mississippi Central	9,407,898	386,067	1,569,154	122,369	250,209	77,596
Mobile & Ohio	63,833,213	2,647,695	15,687,191	1,681,938	2,061,856	1,639,333
Nashville, Chattanooga & St. Louis	58,836,505	4,232,896	18,489,615	4,845,418	4,720,939	1,368,340
New Orleans & Northeastern	21,302,067	852,117	4,405,087	1,117,879	1,151,941	464,782
New Orleans Great Northern	19,048,742	569,458	2,927,841	303,348	545,781	102,154
Norfolk Southern	39,129,296	1,545,608	8,307,966	814,351	1,396,222	482,154
Northern Alabama	5,359,648	56,145	1,048,054	107,369	204,847	82,472
Savannah & Atlanta	5,735,868	129,609	969,397	30,283	28,116	60,757
Seaboard Air Line (incl. Tavares & Gulf)	296,759,252	10,082,804	45,316,447	12,087,851	14,305,841	3,180,150
Southern Ry	640,329,517	30,842,554	111,345,007	32,771,445	26,829,318	8,412,608
Tennessee Central	7,884,667	392,711	2,912,301	344,210	389,022	215,527
Western Ry. of Alabama	9,847,232	677,723	2,300,582	938,290	787,801	151,225
Yazoo & Mississippi Valley	98,366,015	3,175,465	22,060,552	4,790,127	5,920,841	1,491,362
[fol. 2553] Eastern District including Pocahontas Region:		1929				
Akron, Canton & Youngstown	$13,276,719	$992,093	$3,781,736	$27,711	$84,140	195,817
Ann Arbor	24,567,235	1,042,452	5,841,256	402,896	592,493	582,729

Atlantic & St. Lawrence	10,731,632	d 919,510	1,893,856	452,324	722,321	131,445
Atlantic City	16,000,773	d 130,242	1,668,127	2,320,327	2,273,320	43,560
Baltimore & Ohio	[2] 931,765,715	49,184,110	211,000,738	34,418,038	39,319,471	20,657,869
Bangor & Aroostook	36,987,078	2,277,600	7,120,114	1,015,560	1,042,864	315,324
Bessemer & Lake Erie	65,992,855	7,444,665	17,722,807	190,166	689,622	2,427,646
Boston & Maine	273,594,112	12,642,198	54,557,877	23,923,562	21,822,914	2,993,421
Buffalo & Susquehanna	11,813,564	344,329	1,692,260	75,288	85,255	149,112
Buffalo, Rochester & Pittsburgh	74,351,886	2,902,763	16,478,224	1,333,594	2,054,442	1,931,632
Cambria & Indiana	9,174,130	1,145,525	1,342,419	8,563	[3] 9,826	67,849
Canadian Pacific Lines in Maine	8,882,110	d 282,820	2,255,611	507,717	695,990	285,603
Canadian Pacific Lines in Vermont	700,000	d 264,489	1,412,742	677,111	602,722	117,658
Central R. R. of New Jersey	204,116,644	9,367,044	46,491,080	11,645,859	12,834,865	2,827,472
Central Vermont	32,523,497	1,805,842	6,735,775	2,118,566	2,030,667	513,954
Chesapeake & Ohio	440,336,471	37,881,634	120,171,202	9,607,912	11,962,041	19,025,062
Chicago & Eastern Illinois	87,022,422	2,209,033	20,027,176	5,371,099	4,502,252	2,104,170
Chicago & Erie	37,151,107	2,377,438	13,727,922	1,891,917	1,761,605	1,732,905
Chicago & Illinois Midland	10,672,235	563,571	2,928,043	124,369	239,147	244,786
Chicago, Indianapolis & Louisville	54,547,995	2,603,564	15,017,754	3,060,640	2,518,038	1,509,791
Cleveland, Cincinnati, Chicago & St. Louis	336,240,596	15,920,794	71,082,794	20,899,106	18,172,414	8,375,176
Cincinnati Northern	9,761,515	883,240	3,747,127	93,642	107,777	570,792
Delaware & Hudson	132,417,944	8,164,740	36,041,650	5,324,058	5,808,323	3,463,252
Delaware Lackawanna & Western	302,547,473	17,508,587	63,414,546	18,328,675	14,931,979	4,582,184
Detroit & Mackinac	7,813,869	230,744	1,335,321	250,981	354,739	91,092
Detroit & Toledo Shore Line	9,897,764	739,900	4,946,190	.....	.....	378,908
Detroit, Toledo & Ironton	49,981,222	4,501,660	13,949,273	108,147	495,178	855,031
Elgin Joliet & Eastern	59,536,211	5,452,263	26,411,960	480	.....	1,795,884
Erie	512,126,811	19,084,600	96,008,444	17,602,154	18,924,957	9,037,744
Evansville, Indianapolis & Terre Haute	4,933,606	155,741	1,874,451	70,680	130,151	263,363

d Deficit.
[1] Plus cash, material and supplies.
[2] As reported in headnote to schedule 200 A of the annual report.
[3] Separated on basis of car-miles.

EXHIBIT No. 358½—Continued

1929—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Eastern District including Pocahontas Region—Continued						
Grand Trunk Western	109,301,103	5,805,122	33,743,977	3,675,498	4,022,342	2,396,710
Hocking Valley	63,960,533	6,035,440	19,951,216	937,644	1,183,311	2,928,175
Illinois Terminal	43,246,511	1,374,552	5,416,298	1,747,129	1,595,102	267,957
Lehigh & Hudson River	7,567,576	477,609	2,525,456	123,889	164,176	323,412
Lehigh & New England	21,241,589	1,183,176	5,041,713	42,946	57,283	369,358
Lehigh Valley	269,997,440	12,938,556	61,172,034	10,550,704	9,678,545	5,144,620
Long Island	139,733,394	8,707,943	11,749,042	29,577,153	19,430,224	174,497
Maine Central	71,062,487	3,680,319	15,161,676	5,150,593	4,660,093	846,569
Michigan Central	256,885,603	21,898,377	66,761,617	27,957,349	17,565,047	4,563,484
Missouri-Illinois	8,173,983	512,755	2,260,513	63,583	96,400	129,517
Monongahela	29,041,513	2,060,214	7,257,959	166,713	403,427	654,786
Montour	9,776,164	914,991	2,436,489	10	824	132,328
New Jersey & New York	3,854,681	d 260,092	336,753	1,206,154	1,101,937	4,619
New York Central[5]	1,506,387,142	64,844,629	253,562,968	143,958,888	97,869,599	23,030,463
New York, Chicago & St. Louis	240,216,080	10,471,999	53,201,944	3,183,513	4,423,926	5,291,371
New York Connecting	28,574,735	1,260,858	2,630,741	410,292	28,326	116,589
New York, New Haven & Hartford	459,803,001	33,631,144	80,004,275	62,454,395	41,507,403	3,912,925
New York, Ontario & Western	98,490,606	851,365	8,549,119	3,663,477	2,457,202	780,843
New York Susquehanna & Western	39,790,205	647,256	4,294,403	763,163	1,250,231	114,699
Norfolk & Western	452,584,136	44,208,196	109,354,859	8,276,892	9,641,946	16,730,308
[fol. 2554]						
Pennsylvania	2,442,181,093	133,139,626	501,694,533	181,008,398	140,884,787	48,991,173
Pere Marquette	159,703,062	9,273,417	43,309,557	5,158,882	5,169,219	3,540,668
Pittsburgh & Lake Erie	123,208,591	7,891,541	31,385,264	2,749,844	3,928,006	2,564,420

Pittsburgh & Shawmut	13,909,888	356,865	1,462,449	48,580	104,340	121,315
Pittsburgh & West Virginia	49,271,528	2,276,783	4,663,762	65,843	158,384	204,833
Pittsburgh, Shawmut & Northern	25,569,166	12,245	1,764,171	34,594	106,408	161,508
Reading	427,417,327	17,196,521	86,996,456	10,200,499	15,213,718	6,873,881
Richmond, Fredericksburg & Potomac	34,639,793	2,434,944	6,397,801	5,446,024	3,747,143	469,291
Rutland	29,233,032	997,011	3,613,281	2,663,402	2,257,410	219,674
Staten Island Rapid Transit	13,204,078	460,515	963,630	1,674,267	1,460,740	6,955
Ulster & Delaware	6,374,185	32,347	461,473	632,631	588,404	22,984
Virginian	154,801,354	8,792,098	19,407,644	463,992	921,945	2,864,043
Wabash	301,813,662	13,251,591	65,773,135	10,859,839	10,191,520	6,107,472
Western Maryland	158,252,756	5,824,583	18,349,768	635,938	1,202,594	2,128,838
West Jersey & Seashore	32,467,627	1,878,200	5,282,677	5,153,123	4,456,706	166,903
Wheeling & Lake Erie	95,242,509	5,115,433	20,917,599	417,623	691,132	1,863,674
Southern Region:						
Alabama Great Southern	37,379,890	2,468,709	8,038,001	2,298,629	1,951,301	827,035
Atlanta & West Point	7,319,592	200,435	2,019,583	865,829	819,772	108,077
Atlanta Birmingham & Coast	25,748,357	d 257,462	4,134,660	585,033	922,190	325,624
Atlantic Coast Line	302,662,500	12,874,207	54,737,340	17,634,555	17,122,776	3,281,770
Central of Georgia	107,162,339	4,508,457	19,826,888	5,207,104	5,661,046	1,592,343
Charleston & Western Carolina	12,392,487	460,157	2,950,397	202,965	401,436	230,295
Cincinnati, New Orleans & Texas Pacific	73,316,030	3,995,695	18,319,251	4,170,197	4,304,539	1,706,408
Clinchfield	73,220,679	2,713,355	6,529,611	253,629	313,289	721,291
Columbus & Greenville	3,712,886	265,507	1,647,086	294,108	326,974	89,858
Florida East Coast	123,104,747	1,637,961	7,847,441	5,598,574	4,719,155	458,516

d Deficit.
[1] Plus cash, material and supplies.
[4] Includes Canada Southern Ry. $37,095,897.
[6] Includes Chicago Kalamazoo & Saginaw, and Ottawa & New York.

EXHIBIT No. 358½—Continued

1929—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Southern Region—Continued						
Georgia & Florida	21,716,102	115,872	1,487,211	186,385	373,340	81,697
Georgia R. R. Lessee Organization	17,333,741	938,211	4,338,474	943,521	1,032,382	327,236
Georgia Southern & Florida	16,937,874	427,624	2,759,816	1,466,579	1,597,781	207,823
Gulf & Ship Island	16,785,624	d 93,006	2,599,777	578,140	904,483	180,353
Gulf, Mobile & Northern	35,710,798	1,429,949	7,057,907	573,315	974,889	657,452
Illinois Central	635,514,927	24,447,079	123,950,842	29,232,966	27,774,691	13,864,065
Louisville & Nashville[6]	503,752,801	20,874,750	110,852,367	22,476,087	23,029,615	12,690,902
Macon, Dublin & Savannah	3,837,001	64,093	749,549	44,430	[3] 26,143	45,441
Mississippi Central	9,417,506	377,384	1,524,684	120,239	250,341	81,803
Mobile & Ohio	63,522,629	2,460,151	15,625,101	1,690,431	1,970,323	1,626,124
Nashville, Chattanooga & St. Louis	60,770,766	4,845,801	18,695,738	4,507,987	4,379,610	1,423,928
New Orleans & Northeastern	20,652,406	881,245	4,439,642	1,160,039	1,114,252	455,948
New Orleans Great Northern	18,594,634	355,712	2,968,203	294,552	590,136	192,216
Norfolk Southern	39,064,148	1,291,973	7,337,069	771,220	1,382,664	425,809
Northern Alabama	5,338,093	213,269	1,151,288	100,417	191,550	90,857
Savannah & Atlanta	5,538,661	116,474	1,052,242	24,579	[3] 18,341	65,010
Seaboard Air Line (incl. Tavares & Gulf)	298,032,160	11,014,204	46,206,172	12,128,465	[7] 13,125,834	3,197,609
Southern Ry	637,751,936	30,030,977	110,589,654	32,594,294	26,773,889	8,350,518
Tennessee Central	8,064,038	495,773	3,003,820	326,442	337,365	228,938
Western Ry. of Alabama	10,108,582	434,117	2,149,225	881,504	873,074	137,681
Yazoo & Mississippi Valley	98,520,974	3,274,932	22,979,803	4,605,762	5,889,122	1,603,305

[fol. 2555]

1930

Eastern District including Pocahontas Region:						
Akron, Canton & Youngstown	$13,255,556	$547,354	$2,700,160	$20,242	$74,951	143,462
Ann Arbor	24,543,914	533,514	4,760,402	265,406	468,476	475,291
Atlantic City	16,125,617	d 845,601	1,336,399	1,709,804	2,186,360	34,652
Baltimore & Ohio	[1] 952,212,555	40,248,613	178,746,552	27,913,883	36,408,088	17,198,082
Bangor & Aroostook	36,075,755	2,335,907	7,498,309	867,448	1,114,875	326,765
Bessemer & Lake Erie	68,355,528	4,736,008	14,574,046	138,412	707,302	1,991,519
Boston & Maine	290,025,833	12,251,159	47,674,607	21,603,728	20,044,444	2,666,891
Buffalo & Susquehanna	11,866,351	473,084	1,763,234	63,558	100,787	143,202
Buffalo, Rochester & Pittsburgh	73,882,072	2,227,565	14,320,204	1,043,798	2,005,878	1,683,426
Canadian National Lines in New England	11,287,577	d 1,055,890	1,584,785	352,799	660,658	98,138
Cambria & Indiana	9,346,403	1,120,709	1,370,475	4,500	[3] 9,598	72,962
Canadian Pacific Lines in Maine	9,373,305	d 336,780	2,026,920	479,034	697,791	209,345
Canadian Pacific Lines in Vermont	700,000	d 382,356	1,189,365	601,585	633,565	99,008
Central R. R. of New Jersey	204,321,706	7,152,607	41,251,323	10,502,500	12,309,595	2,547,701
Central Vermont	34,183,794	1,270,775	5,957,635	1,627,098	1,807,701	492,375
Chesapeake & Ohio[4]	546,619,188	40,515,559	128,975,491	8,197,546	13,413,894	20,714,483
Chicago & Eastern Illinois	79,783,473	d 5,505,969	15,765,388	4,018,911	4,282,583	1,682,582
Chicago & Erie	37,749,431	1,337,218	12,095,573	1,527,891	1,715,528	1,498,905
Chicago & Illinois Midland	11,086,459	565,496	3,059,399	96,071	246,487	270,600
Chicago, Indianapolis & Louisville	54,582,475	1,138,760	12,426,281	2,298,795	2,259,218	1,240,881
Delaware & Hudson	133,680,364	5,868,962	33,348,805	4,557,338	5,411,223	3,180,152
Delaware, Lackawanna & Western	318,179,127	11,159,923	53,538,792	16,122,698	14,424,069	3,821,398
Detroit & Mackinac	7,559,537	27,682	896,989	185,785	284,339	52,809
Detroit & Toledo Shore Line	10,150,078	707,466	3,725,251	.....	.....	298,373
Detroit, Toledo & Ironton	48,102,233	3,156,869	10,100,997	62,780	318,130	643,879

d Deficit.

[1] Plus cash, material and supplies.

[2] As reported in headnote to schedule 200 A of the annual report.

[3] Separated on basis of car-miles.

[4] Includes Hocking Valley returns for four months ending April 30, 1930.

[6] Includes Louisville, Henderson & St. Louis for 5 months ended May 31, 1929.

[7] Expenses of Tavares & Gulf separated on basis of car-miles.

EXHIBIT No. 358½—Continued

1930—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (thousands)
Eastern District including Pocahontas Region—Continued						
Elgin, Joliet & Eastern	62,509,105	3,015,064	21,804,912	2,704	168	1,466,556
Erie	531,266,582	13,689,974	79,915,221	15,457,326	17,770,783	7,631,728
Grand Trunk Western	112,576,233	294,368	23,395,814	2,847,292	4,235,729	1,803,883
Illinois Terminal	49,798,459	1,457,188	5,915,589	1,442,690	1,508,035	309,192
Lehigh & Hudson River	7,395,196	242,707	2,150,182	103,905	154,244	279,902
Lehigh & New England	21,785,343	1,097,774	5,031,322	34,465	50,003	386,900
Lehigh Valley	274,065,456	8,537,808	51,732,675	8,931,513	9,126,487	4,407,406
Long Island	141,184,771	7,995,446	10,913,426	28,683,008	19,281,373	176,203
Maine Central	70,151,117	3,000,727	14,877,615	4,114,758	4,407,365	842,756
Missouri-Illinois	8,140,715	295,793	1,770,470	43,903	101,884	97,230
Monongahela	28,906,077	1,343,607	5,980,010	96,437	302,362	552,865
Montour	9,895,136	970,533	2,562,690	512	1,657	142,271
New Jersey & New York	3,786,493	d 244,962	280,991	1,136,479	1,051,794	3,832
New York Central	2,766,977,786	57,235,527	320,034,282	158,884,066	122,788,504	30,483,123
New York, Chicago & St. Louis	242,767,880	5,648,754	43,566,926	2,966,260	4,732,492	4,410,397
New York Connecting	28,025,314	993,703	2,210,026	307,253	37,135	97,862
New York, New Haven & Hartford	466,307,968	25,084,940	64,604,969	54,280,546	37,549,883	3,369,080
New York, Ontario & Western	98,038,015	883,267	7,441,734	2,975,654	2,093,605	693,051
New York, Susquehanna & Western	40,018,127	628,606	4,012,685	696,934	1,145,786	113,794
Norfolk & Western	465,559,369	33,640,859	94,291,230	6,239,228	9,277,132	13,984,197
Pennsylvania[6]	2,549,572,343	92,341,351	417,958,158	156,488,796	134,562,337	41,007,638
Pere Marquette	162,791,917	4,541,164	33,569,187	3,647,191	4,919,093	2,775,435
Pittsburgh & Lake Erie	125,456,636	7,373,119	25,166,435	2,174,763	3,590,431	2,143,889
Pittsburgh & Shawmut	13,713,778	305,738	1,122,425	53,996	102,409	91,293
Pittsburgh & West Virginia	56,698,055	1,555,309	3,739,181	48,698	148,276	168,252

Pittsburgh, Shamut & Northern	25,496,030	153,535	1,545,138	24,730	110,443	140,031
Reading	449,218,959	12,644,507	78,490,573	8,432,041	14,806,538	6,371,208
Richmond, Fredericksburg & Potomac	34,869,764	1,307,836	5,537,016	4,806,422	3,754,289	398,752
Rutland	28,469,660	606,140	3,212,844	2,073,342	2,040,440	198,057
Staten Island Rapid Transit	13,760,505	298,132	851,917	1,597,042	1,506,370	5,984
Ulster & Delaware	6,346,396	d 8,999	418,624	558,018	563,200	19,558
Virginian	157,383,165	7,415,869	17,086,040	369,229	871,025	2,499,620
Wabash	308,286,443	7,711,675	53,907,402	8,063,350	9,265,449	5,237,266
Western Maryland	160,356,990	5,253,239	17,401,713	390,981	1,028,225	2,025,750
Wheeling & Lake Erie	95,419,188	3,052,945	16,057,882	301,102	580,686	1,460,34[illegible]
Southern Region:						
Alabama Great Southern	37,493,160	1,327,268	6,308,850	1,625,382	1,697,925	643,799
Atlanta & West Point	7,220,349	14,502	1,649,903	690,078	706,081	89,048
Atlanta, Birmingham & Coast	25,369,813	d 659,657	3,666,176	432,404	920,348	282,023
Atlantic Coast Line	302,196,898	7,241,304	47,814,349	15,205,608	16,295,785	2,871,257
Central of Georgia	108,621,719	3,668,811	16,903,103	4,179,326	5,101,478	1,360,631
Charleston & Western Carolina	12,302,773	299,006	2,648,857	146,797	380,955	208,965
Cincinnati, New Orleans & Texas Pacific	77,170,805	3,620,613	15,163,125	2,878,825	3,499,874	1,415,575
Clinchfield	74,025,137	1,927,195	5,832,182	183,881	295,814	694,872
Columbus & Greenville	3,713,491	116,976	1,392,823	205,559	320,699	93,874
Florida East Coast	119,935,453	1,040,154	6,892,489	4,837,322	4,533,112	393,479
Georgia & Florida	21,938,773	89,606	1,575,988	119,149	316,768	92,840
Georgia R. R. Lessee Organization	17,413,288	735,005	3,895,062	747,638	912,792	290,625
Georgia Southern & Florida	16,819,232	373,567	2,511,318	1,052,392	1,262,705	189,426
Gulf & Ship Island	16,665,004	d 118,761	2,119,312	457,839	738,099	148,571
Gulf, Mobile & Northern	37,433,847	631,119	5,479,894	417,721	936,848	570,685

d Deficit.

[1] Plus cash, material and supplies.

[2] Includes Canada Southern, $37,369,997, and Ottawa & New York, $2,727,909.

[3] Includes West Jersey & Seashore returns for six months ending June 30, 1930.

EXHIBIT No. 358½—Continued

1930—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (thousands)
Southern Region—Continued						
Illinois Central	637,479,302	20,907,875	101,081,442	24,011,771	24,168,870	11,081,281
Louisville & Nashville	502,017,183	14,006,913	95,270,253	17,170,732	21,280,689	10,990,410
Macon, Dublin & Savannah	3,865,000	93,521	721,589	31,345	23,682	41,254
Mississippi Central	9,354,654	131,298	1,235,200	82,372	249,924	67,996
Mobile & Ohio	63,021,603	653,326	12,835,309	1,193,805	1,917,098	1,330,843
Nashville, Chattanooga, & St. Louis	60,576,013	2,112,288	15,882,747	3,434,706	4,067,853	1,251,832
New Orleans & Northeastern	20,582,798	274,574	3,494,264	808,093	1,076,422	376,270
New Orleans Great Northern	19,391,111	254,983	2,562,267	216,020	491,243	187,994
Norfolk Southern	38,272,673	743,011	6,394,613	506,842	1,166,728	378,098
Northern Alabama	5,300,046	69,769	933,168	63,756	183,729	77,451
Savannah & Atlanta	5,666,538	169,953	1,098,480	17,312	20,579	62,017
Seaboard Air Line (incl. Tavares & Gulf)	303,427,461	5,839,209	40,581,720	9,231,663	12,113,275	2,942,880
Southern Ry	639,204,735	19,708,163	94,054,534	24,814,074	24,656,124	7,167,545
Tennessee Central	8,194,510	408,560	2,839,518	225,320	314,054	215,694
Western Ry. of Alabama	10,402,665	325,919	1,800,174	708,449	733,142	111,454
Yazoo & Mississippi Valley	98,584,769	2,685,202	19,607,247	3,689,101	4,957,728	1,486,950

[fol. 2557]

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Eastern District including Pocahontas Region:						
Akron, Canton & Youngstown	$13,205,465	$252,040	$1,895,971	$19,715	$54,125	104,414
Ann Arbor	24,428,003	22,643	3,806,581	173,924	336,712	370,502
Atlantic City	16,068,346	d 637,823	1,200,266	1,510,923	1,916,869	33,933
Baltimore & Ohio	951,861,340	26,230,851	136,022,425	22,452,202	30,817,344	13,256,651
Bangor & Aroostook	36,182,500	1,388,817	6,229,179	656,021	1,014,159	269,946

Bessemer & Lake Erie	67,728,693	2,373,536	8,602,058	71,770	639,880	1,127,994
Boston & Maine	287,663,471	9,894,768	39,901,816	17,883,162	17,378,539	2,273,291
Buffalo & Susquehanna	10,508,288	185,842	1,487,775	68,661	85,356	111,465
Buffalo, Rochester & Pittsburgh	73,503,542	1,335,705	11,995,286	727,079	1,569,397	1,462,431
Canadian National Lines in New England	11,283,622	d 1,154,764	1,154,371	261,556	567,824	76,513
Cambria & Indiana	8,866,901	922,480	1,230,234	1,395	10,197	65,440
Canadian Pacific Lines in Maine	9,757,259	d 463,741	1,659,756	377,038	649,032	185,288
Canadian Pacific Lines in Vermont	700,000	d 465,062	861,195	485,820	574,732	80,136
Central R. R. of New Jersey	203,087,944	4,224,783	31,000,008	8,441,823	10,370,660	1,936,541
Central Vermont	34,172,567	681,390	5,140,032	1,389,998	1,665,663	417,615
Chesapeake & Ohio	548,407,926	35,329,943	113,234,847	6,317,323	12,425,421	18,391,434
Chicago & Eastern Illinois	78,880,981	d 1,700,501	12,150,419	2,985,542	3,671,761	1,262,829
Chicago & Erie	38,370,123	498,051	9,795,044	1,131,352	1,541,610	1,228,568
Chicago & Illinois Midland	12,148,704	470,195	2,670,053	65,775	205,555	247,108
Chicago, Indianapolis, & Louisville	54,195,307	177,314	9,297,181	1,757,621	2,014,910	955,342
Delaware & Hudson	133,708,440	4,279,682	27,037,420	3,634,620	4,808,957	2,586,125
Delaware, Lackawanna & Western	315,798,066	7,241,204	44,573,339	14,101,499	13,238,621	3,178,065
Detroit & Mackinac	7,524,938	188,804	848,273	152,619	267,044	46,973
Detroit & Toledo Shore Line	9,796,276	444,501	2,905,032	.....	.....	236,362
Detroit, Toledo & Ironton	47,463,757	954,712	5,700,706	53,461	245,030	411,532
Elgin, Joliet & Eastern	62,227,764	d 8,411	13,342,104	60	.....	984,717
Erie	525,834,747	9,854,051	66,329,964	12,897,241	15,653,883	6,411,344
Grand Trunk Western	113,569,781	d 1,919,135	17,654,944	2,123,076	3,830,400	1,387,780
Illinois Terminal	52,930,591	1,367,979	5,188,021	1,129,308	1,472,034	266,970
Lehigh & Hudson River	7,284,923	213,748	1,905,709	93,233	140,743	251,842

d Deficit.
[1] Plus cash, material and supplies.
[2] As reported in note in Schedule 200 A of annual report.
[3] Separated on basis of car-miles.
[7] Expenses of Tavares & Gulf separated on basis of car-miles.

EXHIBIT No. 358½.—Continued

1931—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Eastern District including Pocahontas Region—Continued						
Lehigh & New England	22,200,180	924,397	4,090,759	16,700	38,262	315,093
Lehigh Valley	271,706,213	4,601,720	42,858,414	7,166,213	8,085,677	3,742,941
Long Island	140,594,689	7,217,785	9,716,746	26,319,656	18,150,116	158,112
Maine Central	69,820,837	1,836,920	11,600,168	3,290,482	3,927,274	654,657
Missouri-Illinois	7,667,779	164,709	1,290,498	32,542	110,297	63,029
Monongahela	28,944,239	1,263,889	4,583,203	51,307	177,551	462,457
Montour	10,338,565	915,766	2,119,255	5,402	1,038	119,763
New Jersey & New York	3,801,477	d 211,548	277,476	1,034,738	989,696	3,469
New York Central	[2] 2,177,814,073	28,075,578	255,458,867	126,731,316	105,022,729	24,902,954
New York, Chicago & St. Louis	242,736,430	2,542,098	34,374,277	2,177,082	4,016,691	3,516,990
New York Connecting	27,689,347	638,182	2,002,431	223,379	46,676	86,704
New York, New Haven & Hartford	460,508,007	18,657,675	55,764,290	44,566,803	32,647,512	2,937,948
New York, Ontario & Western	97,378,092	1,769,353	8,743,439	2,599,540	1,676,365	823,499
New York, Susquehanna & Western	39,806,918	478,006	3,558,898	612,380	1,013,867	94,656
Norfolk & Western	473,943,473	22,977,506	75,204,594	4,650,154	8,624,540	10,863,494
Pennsylvania	2,591,690,707	51,055,806	328,045,107	120,045,172	116,891,177	33,153,777
Pere Marquette	163,108,814	1,284,565	24,677,620	2,667,061	4,250,553	2,168,077
Pittsburgh & Lake Erie	123,529,999	3,276,312	16,450,316	1,386,233	2,904,242	1,528,189
Pittsburgh & Shawmut	13,690,432	240,604	921,273	17,288	50,638	82,814
Pittsburgh & West Virginia	58,053,734	625,016	2,875,415	29,726	93,588	172,470
[fol. 2558]						
Pittsburgh, Shawmut & Northern	25,449,988	182,963	1,256,473	17,316	78,531	109,489
Reading	453,552,880	8,994,704	63,943,451	6,670,638	12,584,260	5,251,930
Richmond, Fredericksburg & Potomac	34,933,343	1,167,742	5,161,365	3,753,880	3,099,810	371,269

Rutland	28,207,842		254,242	2,762,202	1,779,610	1,883,504	180,291
Staten Island Rapid Transit	13,932,256		159,660	719,249	1,441,742	1,398,358	5,390
Ulster & Delaware	6,329,150	d	50,760	384,709	512,654	543,184	19,324
Virginian	160,326,882		6,345,611	15,083,919	253,507	800,947	2,223,779
Wabash	305,865,036	d	366,995	42,913,265	6,250,061	8,174,446	4,180,440
Western Maryland	161,916,749		4,343,198	14,518,090	292,962	790,030	1,707,155
Wheeling & Lake Erie	97,541,039		1,186,801	11,438,634	179,079	482,081	1,051,648
Southern Region:							
Alabama Great Southern	36,867,883		355,768	4,931,401	1,155,603	1,567,525	501,960
Atlanta & West Point	7,370,229	d	150,386	1,296,261	520,214	557,910	65,569
Atlanta, Birmingham & Coast	25,128,589	d	953,258	3,019,033	308,495	799,165	241,668
Atlantic Coast Line	298,598,722		4,748,109	42,508,548	11,579,457	13,335,254	2,485,889
Central of Georgia	107,404,045		1,581,563	13,921,930	3,154,558	4,319,630	1,120,879
Charleston & Western Carolina	12,207,486		359,239	2,352,388	160,619	278,991	197,035
Cincinnati, New Orleans & Texas Pacific	77,247,854		2,046,908	12,323,086	2,065,213	3,227,777	1,120,275
Clinchfield	72,713,061		1,460,070	5,287,145	123,047	259,106	661,554
Columbus & Greenville	3,819,614		87,235	988,709	118,108	207,378	62,172
Florida East Coast	119,468,434		664,636	5,915,702	3,463,327	3,297,975	298,797
Georgia & Florida	21,878,284	d	92,091	1,275,139	82,572	287,669	79,641
Georgia R. R. Lessee Organization	17,553,952		545,106	3,489,027	547,394	753,688	276,874
Georgia Southern & Florida	16,754,421		201,111	2,114,143	705,058	1,009,649	153,055
Gulf & Ship Island	16,582,836	d	365,437	1,337,396	290,434	561,167	94,685
Gulf, Mobile & Northern	36,387,309		166,003	3,815,607	279,136	761,871	392,680
Illinois Central	631,952,372		11,421,469	80,764,238	18,331,739	20,793,671	8,603,757
Louisville & Nashville	505,679,844		9,519,324	74,553,463	12,466,328	17,359,732	8,482,401
Macon, Dublin & Savannah	3,864,856		77,348	612,082	24,703	20,577	38,273
Mississippi Central	9,194,420		135,257	948,564	47,265	119,364	61,645
Mobile & Ohio	61,762,994	d	318,555	9,273,034	771,711	1,265,077	947,250

d Deficit.
[1] Plus cash, material and supplies.
[2] Separated on basis of car-miles.
[3] Includes Canada Southern $37,627,100 and Ottawa & New York, $2,727,999.

EXHIBIT No. 358½—Continued

1931—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (Thousands)
Southern Region—Continued						
Nashville, Chattanooga & St. Louis	60,338,646	822,215	12,606,757	2,533,497	3,287,472	989,835
New Orleans & Northeastern	20,487,072	d 349,157	2,459,451	590,544	919,619	281,270
New Orleans Great Northern	17,677,911	421,028	2,144,180	173,305	404,993	155,664
Norfolk Southern	37,955,889	338,109	5,633,800	383,264	1,016,699	330,862
Northern Alabama	5,114,828	d 61,551	643,748	38,005	149,373	55,856
Savannah & Atlanta	5,827,459	228,450	1,172,726	11,742	[3] 17,692	66,571
Seaboard Air Line (incl. Tavares & Gulf)	305,268,078	2,659,215	35,155,703	7,325,409	10,752,921	2,543,100
Southern Ry	634,513,321	8,281,106	79,114,189	18,600,922	22,585,865	6,047,510
Tennessee Central	8,198,339	258,587	2,438,033	165,478	252,272	196,189
Western Ry. of Alabama	10,589,649	d 6,326	1,308,259	529,662	578,300	80,835
Yazoo & Mississippi Valley	98,359,509	425,949	15,414,727	2,277,490	4,149,815	1,148,690

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[fol. 2559]

Eastern District including Pocahontas Region:						
Akron, Canton & Youngstown	$13,171,262	$223,110	$1,546,133	$18,363	$45,272	78,844
Ann Arbor	24,332,739	31,755	3,001,992	114,597	257,311	289,149
Atlantic City	16,263,997	d 569,205	876,751	1,094,201	1,400,136	23,519
Baltimore & Ohio	[2] 1,021,215,797	21,973,398	109,196,027	16,686,796	24,722,052	10,736,739
Bangor & Aroostook	36,184,490	1,465,499	5,485,700	426,178	822,264	240,968
Bessemer & Lake Erie	67,563,480	d 1,118,701	3,706,323	42,073	476,999	405,986
Boston & Maine	294,616,151	7,366,344	31,557,800	13,529,954	14,015,038	1,812,074
Cambria & Indiana	9,593,055	842,451	1,126,194	d 8	.....	61,282
Canadian National Lines in New England	11,162,976	d 906,194	977,443	189,373	452,943	60,164
Canadian Pacific Lines in Maine	9,709,727	d 350,791	1,372,931	308,716	615,790	143,114

Canadian Pacific Lines in Vermont	700,000	d 448,412	663,570	372,892	499,293	58,024
Central R. R. of New Jersey	201,562,206	2,507,298	23,720,604	6,636,865	8,716,486	1,548,585
Central Vermont	33,835,118	211,470	4,188,472	1,046,098	1,377,008	339,297
Chesapeake & Ohio	543,513,817	32,502,269	94,266,878	4,458,981	10,002,385	15,572,339
Chicago & Eastern Illinois	79,185,841	d 1,283,337	10,060,268	2,129,705	2,961,455	1,039,936
Chicago & Erie	38,484,417	166,808	8,062,431	841,881	1,324,306	1,039,944
Chicago & Illinois Midland	12,636,730	231,511	2,015,479	43,082	141,040	192,076
Chicago, Indianapolis & Louisville	54,040,761	d 111,763	6,695,638	1,220,700	1,472,783	684,764
Delaware & Hudson	135,261,019	15,538	20,492,690	2,732,464	4,212,499	1,980,605
Delaware, Lackawanna & Western	316,360,315	4,011,954	34,438,612	12,009,244	11,380,334	2,482,231
Detroit & Mackinac	7,479,576	103,973	645,844	114,051	265,322	33,776
Detroit & Toledo Shore Line	9,657,440	368,857	2,303,580	.....	.....	191,461
Detroit, Toledo & Ironton	46,074,032	474,254	4,105,440	24,816	109,746	291,204
Elgin, Joliet & Eastern	61,858,442	d 1,016,847	7,763,801	288	129	606,030
Erie	525,153,163	8,663,538	54,447,955	10,393,807	12,801,882	5,159,537
Grand Trunk Western	113,507,033	d 2,031,098	12,522,902	1,389,890	2,817,456	1,025,820
Illinois Terminal	53,632,474	580,769	3,761,846	789,203	1,193,722	199,179
Lehigh & Hudson River	7,257,825	146,471	1,493,639	85,866	109,490	190,197
Lehigh & New England	22,140,303	848,845	3,266,322	8,417	31,896	245,172
Lehigh Valley	268,285,252	3,210,368	33,479,447	5,259,691	6,691,134	2,866,308
Long Island	140,789,901	5,045,925	6,963,692	21,256,384	14,409,554	113,611
Maine Central	69,818,479	1,550,584	9,063,984	2,190,787	2,957,307	494,381
Missouri–Illinois	7,301,030	16,438	852,192	23,369	93,075	40,745
Monongahela	28,893,700	1,142,450	3,611,759	22,357	80,496	359,363
Montour	10,499,193	691,911	1,503,807	5,171	843	84,844
New Jersey & New York	3,852,463	d 263,251	210,958	892,792	940,228	2,652
New York Central	[4] 2,176,843,576	20,812,987	200,738,397	92,897,743	78,127,275	19,776,624
New York, Chicago & St. Louis	244,034,876	2,141,153	27,638,688	1,519,780	2,939,308	2,824,682

d Deficit.

[1] Plus cash, material and supplies.

[2] As reported in headnote to schedule 200 A of the annual report.

[3] Separated on basis of car-miles.

[4] Includes Canada Southern Ry. $37,387,176 and Ottawa & New York, $2,727,999.

EXHIBIT No. 358½—Continued

1932—Continued

Territory and road	Book investment in road and equipment[1] (including lessors)	Net railway operating income	Freight service revenues	Passenger service revenues	Passenger service expenses	Ton-miles of revenue freight (thousands)
Eastern District including Pocahontas Region—Continued						
New York Connecting	27,590,729	1,064,845	2,434,636	123,961	46,862	65,367
New York, New Haven & Hartford	460,668,291	11,243,367	42,271,017	32,702,235	25,115,662	2,178,266
New York, Ontario & Western	97,261,085	1,860,232	8,793,505	1,778,371	1,350,435	823,713
New York, Susquehanna & Western	40,057,080	475,251	3,050,790	471,396	955,405	80,312
Norfolk & Western	47[illegible],735,645	19,161,098	59,466,671	3,308,940	6,983,468	8,593,676
Pennsylvania	2,604,808,318	49,132,038	245,557,752	85,835,706	85,724,418	25,222,172
Pere Marquette	163,556,963	325,472	19,672,871	1,788,406	3,256,448	1,839,217
Pittsburgh & Lake Erie	122,393,426	1,647,098	11,704,224	817,753	2,193,793	1,158,987
Pittsburg & Shawmut	13,692,266	[illegible]27	802,966	11,497	30,406	69,966
Pittsburgh & West Virginia	58,433,878	6[illegible]23	2,23[illegible],945	1,877	12,625	140,028
Pittsburg, Shawmut & Northern	25,283,960	d 4[illegible]15	920,970	14,622	82,876	81,323
Reading	454,038,177	11,08[illegible]6	46,912,246	4,894,128	8,944,766	3,905,762
[fol. 2560]						
Richmond, Fredericksburg & Potomac	$ 35,044,242	$ 564,255	$ 3,739,941	$2,566,618	$2,377,992	$ 268,183
Rutland	28,125,389	306,711	2,466,007	1,404,099	1,551,965	167,038
Staten Island Rapid Transit	14,301,030	d 9,762	608,485	1,196,404	1,204,248	4,180
Ulster & Delaware[5]		d 27,598	14,736	31,604	36,674	499
Virginian	161,144,678	5,196,092	12,666,039	152,930	625,101	1,824,287
Wabash	305,020,828	524,669	33,551,004	4,234,629	6,488,088	3,003,597
Western Maryland	162,681,966	3,714,863	11,847,582	234,102	746,230	1,329,338
Wheeling & Lake Erie	96,851,550	903,170	8,464,890	71,345	249,134	785,050
Southern Region:						
Alabama Great Southern	36,703,241	d 125,808	3,246,599	844,051	1,198,675	312,790
Atlanta & West Point	7,390,083	d 323,420	892,086	371,188	477,668	49,377

Atlanta, Birmingham & Coast	24,417,649	d	852,921	2,192,868	220,926	601,304	178,208
Atlantic Coast Line	290,990,651		108,199	29,543,557	7,725,007	10,350,671	1,679,878
Central of Georgia	106,244,316	d	271,616	9,496,350	2,051,298	3,233,510	810,668
Charleston & Western Carolina	12,060,252		167,692	1,588,162	45,746	141,564	135,659
Cincinnati, New Orleans & Texas Pacific	77,025,649		1,737,111	8,802,281	1,323,821	2,116,192	820,274
Clinchfield	72,801,674		857,618	3,995,518	63,945	212,103	505,638
Columbus & Greenville	3,750,576	d	81,955	651,764	96,936	198,252	41,074
Florida East Coast	119,272,845	d	281,776	4,447,306	2,273,488	2,787,469	203,800
Georgia & Florida	21,735,361	d	200,009	758,640	60,189	224,586	49,673
Georgia R. R. Lessee Organization	17,600,292		241,886	2,501,201	360,979	530,447	189,898
Georgia Southern & Florida	16,586,989		205,525	1,430,991	445,627	678,127	110,025
Gulf & Ship Island	16,724,454	d	280,280	842,621	192,294	328,826	56,792
Gulf, Mobile & Northern	36,042,278	d	132,335	2,905,873	245,779	632,565	298,698
Illinois Central	630,775,435		12,434,934	64,910,416	12,835,142	14,709,346	7,265,235
Louisville & Nashville	505,219,211		8,278,090	55,001,462	8,918,562	13,542,183	6,297,802
Macon, Dublin & Savannah	3,833,821		79,161	504,677	33,993	19,975	32,191
Mississippi Central	9,159,852	d	67,472	574,860	34,922	104,612	36,485
Mobile & Ohio	60,264,521	d	509,802	7,274,578	576,752	1,103,678	769,976
Nashville, Chattanooga & St. Louis	60,046,059		715,254	9,481,149	1,873,967	2,616,491	740,393
New Orleans & Northeastern	20,309,818	d	415,740	1,550,768	410,105	645,837	180,566
New Orleans Great Northern	18,151,136		110,839	1,518,332	134,873	313,069	118,322
Norfolk Southern	36,026,661	d	270,501	3,936,905	251,894	761,105	226,950
Northern Alabama	4,850,064	d	60,209	460,190	26,422	87,322	37,480
Savannah & Atlanta	5,848,013		104,119	836,685	9,549	14,740	47,384
Seaboard Air Line (incl. Tavares & Gulf)	296,472,930		244,810	25,714,706	5,131,837	8,834,510	1,796,694
Southern Ry	636,121,344		4,406,269	59,619,213	13,367,329	18,433,869	4,388,498
Tennessee Central	8,446,446		211,983	1,753,189	120,036	193,407	144,537
Western Ry. of Alabama	10,545,443	d	151,163	860,707	372,521	488,632	57,807
Yazoo & Mississippi Valley	98,715,677		143,620	9,907,238	1,652,482	2,705,030	716,473

d Deficit.
[1] Including cash, material and supplies.
[2] Separated on basis of car-miles.
[3] Returns for January, 1932.

Nine months ended with September

Territory and road.	Net railway operating income.	Rate of return on annual basis.
Eastern District including Pocahontas Region:		(%)
Akron, Canton & Youngstown	$252,250	2.6
Ann Arbor	157,079	.9
Baltimore & Ohio	22,679,436	3.0
Bangor & Aroostook	1,205,953	4.4
Bessemer & Lake Erie	1,602,009	3.2
Boston & Maine	5,592,628	2.5
Cambria & Indiana	711,443	9.9
Canadian National Lines in New England	[d] 569,915	—
Canadian Pacific Lines in Maine	[d] 97,288	—
Canadian Pacific Lines in Vermont	[d] 302,799	—
Central R. R. of New Jersey	1,965,608	1.3
Central Vermont	248,581	1.0
Chesapeake & Ohio	27,073,693	6.6
Chicago & Eastern Illinois	[d] 3,696	—
Chicago & Erie	771,113	2.7
Chicago & Illinois Midland	697,013	7.4
Chicago, Indianapolis & Louisville	[d] 99,513	—
Delaware & Hudson	394,319	.4
Delaware, Lackawanna & Western	2,614,567	1.1
Detroit & Mackinac	14,954	.3
Detroit & Toledo Shore Line	398,883	5.5
Detroit, Toledo & Ironton	798,610	2.3
Elgin, Joliet & Eastern	701,230	1.5
Erie	8,646,002	2.2
Grand Trunk Western	[d] 581,205	—
Illinois Terminal	658,817	1.6
Lehigh & Hudson River	150,305	2.8
Lehigh & New England	517,379	3.1
Lehigh Valley	2,938,844	1.5
Long Island	3,082,279	2.9

[d] Deficit.

[fol. 2562]

Territory and road.	Net railway operating income.	Rate of return on annual basis.
Maine Central	$1,473,716	2.8
Missouri-Illinois	9,846	.2
Monongahela	909,138	4.2
Montour	607,682	7.7
New Jersey & New York	[d] 241,448	—
New York Central	25,785,796	1.6
New York, Chicago & St. Louis	4,016,701	2.2
New York Connecting	1,030,369	5.0
New York, New Haven & Hartford	5,728,438	1.7
New York, Ontario & Western	1,401,389	1.9
New York Susquehanna & Western	239,487	.8
Norfolk & Western	17,647,046	4.9
Pennsylvania	[1] 46,082,398	2.3
Pere Marquette	1,211,221	1.0
Pittsburgh & Lake Erie	2,340,076	2.5
Pittsburgh & Shawmut	89,083	.9
Pittsburgh & West Virginia	739,835	1.7
Pittsburg, Shawmut & Northern	65,322	.3
Reading	9,905,521	2.9
Richmond, Fredericksburg & Potomac	374,511	1.4
Rutland	226,458	1.1
Staten Island Rapid Transit	29,647	.3
Virginian	4,474,607	3.7
Wabash	1,532,696	.7
Western Maryland	2,876,619	2.4
Wheeling & Lake Erie	1,485,324	2.0
Southern Region:		
Alabama Great Southern	444,842	1.6
Atlanta & West Point	[d] 169,286	—
Atlanta, Birmingham & Coast.	[d] 182,481	—
Atlantic Coast Line	3,208,975	1.5
Central of Georgia	539,252	.7

[d] Deficit.

[1] Includes Pennsylvania-Reading Seashore Lines.

[fol. 2563]

Territory and road.	Net railway operating income.	Rate of return on annual basis.
Charleston & Western Carolina	348,728	3.9
Cincinnati, New Orleans & Texas Pacific	2,730,542	4.7
Clinchfield	1,354,292	2.5
Columbus & Greenville	49,990	1.8
Florida East Coast	83,893	.1
Georgia & Florida	5,062	[2]
Georgia R. R.	429,498	3.3
Georgia Southern & Florida	11,106	.1
Gulf & Ship Island	[d] 122,361	—
Gulf, Mobile & Northern	502,925	1.9
Illinois Central	10,684,957	2.3
Louisville & Nashville	8,882,696	2.3
Mississippi Central	[d] 16,920	—
Mobile & Ohio	147,112	.3
Nashville, Chattanooga & St. Louis	879,511	1.9
New Orleans & Northeastern	[d] 212,721	—
Norfolk Southern	60,412	.2
Northern Alabama	[d] 20,656	—
Seaboard Air Line	1,815,048	.8
Southern Ry.	11,242,866	2.4
Tennessee Central	216,042	3.4
Western Ry. of Alabama	[d] 64,966	—
Yazoo & Mississippi Valley	636,639	.9

[d] Deficit.
[2] Less than 0.1%.

[fol. 2564] Dec. 26, 1933

EXHIBIT 358½A

Authorized by Stipulations of Counsel per Correspondence Received in Evidence. H. H.

Interstate Commerce Commission

Bureau of Statistics

Divisions of Joint Rates on Florida Citrus Fruit to Official Territory (Dockets 24069 and 24160).

1933

Ten Months ended with October

Territory and road.	Net railway operating income.	Rate of return on annual basis.
Eastern District including Pocahontas region:		
Akron, Canton and Youngstown	$273,705	2.5
Ann Arbor	189,539	0.9
Baltimore & Ohio	25,683,329	3.0
Bangor & Aroostook	1,401,487	4.6
Bessemer & Lake Erie	1,690,953	3.0
Boston & Maine	6,193,019	2.5
Cambria & Indiana	780,133	9.8
Canadian National Lines in New Eng.	[d] 646,570	—
Canadian Pacific Lines in Maine	(Report not received)	
Canadian Pacific Lines in Vermont	(Report not received)	
Central R. R. of New Jersey	2,046,326	1.2
Central Vermont	278,947	1.0
Chesapeake & Ohio	30,863,796	6.8
Chicago & Eastern Illinois	96,458	0.1
Chicago & Erie	870,485	2.7
Chicago & Illinois Midland	786,445	7.5
Chicago, Indianapolis & Louisville	(Report not received)	
Delaware & Hudson	672,084	0.6
Delaware, Lackawanna & Western	2,847,750	1.1
Detroit & Mackinac	37,948	0.6

[d] Deficit.

Territory and road.	Net railway operating income.	Rate of return on annual basis.
Detroit & Toledo Shore Line	438,853	5.5
Detroit, Toledo & Ironton	896,826	2.3
Elgin, Joliet & Eastern	750,413	1.5
Erie	9,757,516	2.2
Grand Trunk Western	[d] 690,570	—
[fol. 2565]		
Illinois Terminal	734,287	1.6
Lehigh & Hudson River	162,713	2.7
Lehigh & New England	570,672	3.1
Lehigh Valley	3,532,586	1.6
Long Island	3,355,610	2.9
Maine Central	1,686,488	2.9
Missouri-Illinois	18,233	0.3
Monongahela	981,227	4.1
Montour	619,286	7.1
New Jersey & New York	[d] 278,545	—
New York Central	29,222,608	1.6
New York, Chicago & St. Louis	4,435,690	2.2
New York Connecting	1,116,978	4.9
New York, New Haven & Hartford	6,422,819	1.7
New York, Ontario & Western	1,447,755	1.8
New York, Susquehanna & Western	258,252	7.7
Norfolk & Western	20,543,646	5.2
Pennsylvania	52,543,596	2.4
Pere Marquette	1,379,790	1.0
Pittsburgh & Lake Erie	2,558,427	2.5
Pittsburg & Shawmut	98,580	0.9
Pittsburgh & West Virginia	(Report not received)	
Pittsburg, Shawmut & Northern	88,387	0.4
Reading	11,404,427	3.0
Richmond, Fredericksburg & Potomac	383,176	1.3
Rutland	260,172	1.1
Staten Island Rapid Transit	30,372	0.3
Virginian	4,996,888	3.7
Wabash	1,937,440	0.8

[d] Deficit.

Territory and road.		Net railway operating income.	Rate of return on annual basis.
Western Maryland		3,294,762	2.4
Wheeling & Lake Erie		1,592,927	2.0
[fol. 2566] Southern region:			
Alabama Great Southern		$491,710	1.6
Atlanta & West Point	d	184,930	—
Atlanta, Birmingham & Coast	d	215,185	—
Atlantic Coast Line		3,354,398	1.4
Central of Georgia		600,733	0.7
Charleston & Western Carolina		368,760	3.7
Cincinnati, New Orleans & Texas Pacific		2,995,874	4.7
Clinchfield		(Report not received)	
Columbus & Greenville		83,837	2.7
Florida East Coast	d	136,495	—
Georgia & Florida	d	3,679	—
Georgia R. R.		469,285	2.9
Georgia, Southern & Florida	d	1,460	—
Gulf & Ship Island	d	139,672	—
Gulf, Mobile & Northern [1]		677,867	1.5
Illinois Central		12,287,208	2.3
Louisville & Nashville		9,943,847	2.4
Mississippi Central	d	16,031	—
Mobile & Ohio		155,293	0.3
Nashville, Chattanooga & St. Louis		914,734	1.8
New Orleans & Northeastern	d	201,536	—
Norfolk Southern		176,904	0.6
Northern Alabama	d	13,702	—
Seaboard Air Line		2,002,840	0.8
Southern Ry.		12,673,369	2.4
Tennessee Central		237,657	3.4
Western Ry. of Alabama	d	80,659	—
Yazoo & Mississippi Valley		939,902	1.1

[d] Deficit.

[1] Includes New Orleans Great Northern.

[fol. 2567] Certificate to attached papers omitted in printing.

[fols. 2568 & 2569] INDEX

Page

I. The prescribed divisions are not sufficient for particular hauls or in the aggregate to pay petitioners' costs and expenses reasonably chargeable to the transportation and handling of citrus fruit from the gateways at which it is received from Southern lines to destinations in Official territory. The application of these divisions to the rates on citrus fruit will certainly approach, if not in fact result in, confiscation and will deprive petitioners of their property without due process of law in violation of their constitutional rights. This is before the application of the prescribed divisions to any property based and without allowance whatsoever for any return on the property used in the service of transporting citrus fruit 1581

II. The prescribed divisions will not, in the aggregate, produce sufficient revenues to pay petitioners' operating expenses, taxes, and a fair return on their railway property held for and used in the service of transporting citrus fruit, and, therefore the order of the Commission prescribing these divisions is in violation of Section 15 (6) of the Interstate Commerce Act and in excess of the Commission's statutory powers 1587

III. The prescribed divisions were determined by the Commission with reference to the movement of citrus fruit during the season of 1928-1929 and in consideration of the "practical effects" of these divisions upon the revenues of the two respective sets of carriers. Since the 1928-1929 season the volume of citrus fruit traffic moving all-rail to New York and other Atlantic port cities, which

[fol. 2570]

constitutes the large preponderance of the traffic to Trunk Line and New England terri-

Page

tories, has so substantially decreased, and conditions have so materially changed, that divisions prescribed with reference to conditions as they existed in the season of 1928-1929 have become and will be even more unreasonable and inequitable for the future than petitioners were inclined to believe 1593

IV. The prescribed divisions were determined by the Commission upon a record made and closed on December 22, 1931. Since that time voluminous evidence has been introduced in Docket No. 24160 (a part of which proceeding was included in the record upon the basis of which the divisions on citrus fruit to points in C. F. A. territory were prescribed) descriptive of operating conditions surrounding the movement of vegetables from Florida and fruits and vegetables from other portions of Southern Territory, which evidence clearly show that the Commission erred in some of its more important findings with respect to the alleged burdens borne by Southern lines in connection with the transportation of citrus fruit 1597

V. The divisions of the rates on citrus fruit herein complained of were erroneously and unlawfully prescribed by the Commission, and its order is in excess of its statutory powers because it based its conclusions as to the financial needs of Southern lines, incident to the transportation of a single commodity, to-wit, citrus fruit, upon the average rates of return from the total business of the Southern lines 1603

Prayer 1610

Appendix "A" 1610

[fol. 2571] CASES CITED

Atlantic Coast Line Railroad Co. vs. Arcade & Attica Railroad Corporation, Docket No. 24069 1610

Atlantic Coast Line Railroad Co. vs. Florida, 203 U. S. 256 1587

	Page
Beaumont S. L. & W. R. Co. vs. U. S., 282 U. S. 74	1608
Burch, R. W., Inc. vs. Railway Express Agency, Inc., Docket No. 23972	1586
New England Divisions Case,	
66 I. C. C. 196	1588,1606,1608
261 U. S. 184	1606
Georgia Public Service Commission vs. Atlantic Coast Line R. R. Co., 186 I. C. C. 157	1585
In re Refrigeration Charges on Fruits, etc., from the South, 151 I. C. C. 649	1616
In the Matter of Divisions of Joint Interterritorial Rates Between Official and Southern Territories, Docket No. 24160	1611
P. & W. Va. Ry. Co. vs. P. & L. E., 61 I. C. C. 272	1591
Southwestern Case, 148 I C. C. 477	1588

[fol. 2572] BEFORE THE INTERSTATE COMMERCE COMMISSION

Docket No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

vs.

ARCADE & ATTICA RAILROAD CORPORATION et al.

Docket No. 24160

In the Matter of Divisions of Joint Interterritorial Rates Between Official and Southern Territories

SECOND PETITION FOR REHEARING, RECONSIDERATION AND REARGUMENT IN BEHALF OF DEFENDANTS AND CROSS-COMPLAINANTS IN NO. 24069, AND IN BEHALF OF RESPONDENTS WITHIN OFFICIAL TERRITORY IN NO. 24160, AND FOR POSTPONEMENT OF THE EFFECTIVE DATE OF THE COMMISSION'S ORDER—Filed April 27, 1934

Your petitioners above described respectfully file this, their second petition, for rehearing, reconsideration and reargument in this proceeding, which involves the propriety of the divisions of the rates on citrus fruits moving from Florida to points throughout Official territory, and in support of said petition respectfully show:

[fol. 2573] I

The prescribed divisions are not sufficient for particular hauls or in the aggregate to pay petitioners' costs and expenses reasonably chargeable to the transportation and handling of citrus fruit from the gateways at which it is received from Southern lines to destinations in Official territory. The application of these divisions to the rates on citrus fruit will certainly approach, if not in fact result in, confiscation and will deprive petitioners of their property without due process of law in violation of their constitutional rights. This is before the application of the prescribed divisions to any property base and without allowance whatsoever for any return on the property used in the service of transporting citrus fruit.

II

The prescribed divisions will not, in the aggregate, produce sufficient revenues to pay petitioners' operating expenses, taxes, and a fair return on their railway property held for and used in the service of transporting citrus fruit, and therefore, the order of the Commission prescribing these divisions is in violation of Section 15 (6) of the Interstate Commerce Act and in excess of the Commission's statutory powers.

III

The prescribed divisions were determined by the Commission with reference to the movement of citrus fruit during the season of 1928-1929 and in consideration of the "practical effects" of these divisions upon the revenues of the two respective sets of carriers. Since the 1928-1929 season the volume of citrus fruit traffic moving all-rail to [fol. 2574] New York and other Atlantic port cities, which constitutes the large preponderance of the traffic to Trunk Line and New England territories, has so substantially decreased and conditions have so materially changed, that divisions prescribed with reference to conditions as they existed in the season of 1928-1929 have become and will be even more unreasonable and inequitable for the future than petitioners were inclined to believe.

IV

The prescribed divisions were determined by the Commission upon a record made and closed on December 22,

1931. Since that time voluminous evidence has been introduced in Docket No. 24160 (a part of which proceeding was included in the record upon the basis of which the divisions on citrus fruit to points in Central territory were prescribed), descriptive of operating conditions surrounding the movement of vegetables from Florida and fruits and vegetables from other portions of Southern territory, which evidence clearly shows that the Commission erred in some of its more important findings with respect to the alleged burdens borne by Southern lines in connection with the transportation of citrus fruits.

V

The divisions of the rates on citrus fruit herein complained of were erroneously and unlawfully prescribed by the Commission, and its order is in excess of its statutory powers, because it based its conclusions as to the financial needs of Southern lines, incident to the transportation of a single commodity, to-wit, citrus fruit, upon the average rates of return from the total business of the Southern lines.

[fol. 2575] Argument in Support of Petition

I

The prescribed divisions are not sufficient for particular hauls or in the aggregate to pay petitioner's costs and expenses reasonably chargeable to the transportation and handling of citrus fruit from the gateways at which it is received from Southern lines to destinations in Official territory. The application of these divisions to the rates on citrus fruit will certainly approach, if not in fact result in, confiscation and will deprive petitioners of their property without due process of law in violation of their constitutional rights. This is before the application of the prescribed divisions to any property base and without allowance whatsoever for any return on the property used in the service of transporting citrus fruit.

Petitioners have heretofore insisted on brief and in their petition for rehearing that the prescribed divisional factors on citrus fruit are contrary to and unsupported by the evi-

dence; that they were arbitrarily derived, and that the formula used by the Commission has no sound basis, related in any way to actual service performed or to relative transportation conditions, general rate levels or relative costs of service in the two territories. This is still their contention. Accordingly, the question of petitioners' constitutional rights has already been raised upon this record. Petitioners have not, however, heretofore asserted to the Commission that the divisions of the rates on citrus fruit prescribed for them are not sufficient for particular hauls, or in the aggregate, to pay petitioners' costs and expenses reasonably chargeable to the transportation and handling of citrus fruit between points in Official territory, and that they are not adequate to avoid confiscation of petitioners' property in violation of their constitutional rights.

[fol. 2576] Further investigation and study of the statistical evidence of record, supplemented by other facts, some of which were developed in the further hearings in No. 24160 in connection with divisions of the rates on vegetables and other perishables, including vegetables from Florida and fruits and vegetables from other portions of Southern territory, have convinced petitioners that the prescribed divisions of the rates on citrus fruit will certainly approach, if not in fact result in, confiscation of petitioners' property.

The facts in support of this contention are contained in an affidavit by Edwin A. Hodkinson, Commerce Satistician of the Trunk Line Association, attached hereto, marked "Exhibit A," and asked to be read as a part of this petition. The affidavit sets forth the results of a study made by Mr. Hodkinson comparing the revenues received by typical Northern and Southern lines handling the great bulk of citrus traffic to Trunk Line territory via the Richmond gateway under the divisional factors prescribed by the Commission, with costs and expenses reasonably chargeable to the transportation and handling of this traffic. The expenses are allocated to the citrus fruit traffic on the basis of total system freight car miles, using statistics for the year 1929, and, together with an allowance for taxes allocated on the same basis, plus car rental, show that in the aggregate, and based on system averages only, as applied to shipments that moved in the 1928-29 season, the Pennsylvania Railroad, Baltimore & Ohio, and Rich-

mond, Fredericksburg & Potomac would have suffered a loss north of Richmond, Va., of $54,403.70, or an average of $3.48 per car on the 15,644 cars covered by Exhibit No. 4, attached to Mr. Hodkinson's affidavit, and this without [fol. 2577] including anything whatsoever for return on investment. These 15,644 cars constitute all the cars that originated on the Atlantic Coast Line and Seaboard Air Line in Florida and moved via Richmond to New York, Philadelphia, Baltimore, Pittsburgh, Altoona and Buffalo, and they represent about 72.5 per cent of all cars of Florida citrus fruit delivered by the Pennsylvania and Baltimore & Ohio at destinations in Trunk Line territory in the 1928-29 season.

In the same study (Exhibits Nos. 6 and 7) Mr. Hodkinsson has compared the revenues and expenses of the Atlantic Coast Line and Seaboard Air Line Railroads, allocated on the same basis, from all Florida origins on their lines to Richmond, Va. Applying the same formula, using the system total freight car-mile basis, it is shown that the Atlantic Coast Line and the Seaboard Air Line, based on the same 15,644 cars that moved during the 1928-1929 season, would have received, in the aggregate, for their hauls to Richmond the sum of $1,595,313.00 in excess of costs and expenses reasonably chargeable to the transportation and handling of citrus fruit, or an average of about $101.97 per car (Ex. No. 7). This return in excess of operating expenses, taxes and car rentals would have amounted to 12.93 per cent on that portion of the investment (allocable to citrus fruit) of the Atlantic Coast Line and Seaboard Air Line assignable to freight operations on the basis of operating expenses as developed by the application of the formula prescribed by the Interstate Commerce Commission for allocating operating expenses.

Complainants' operating testimony in Docket No. 24069, as found by the Commission at page 742 of its first report "clearly indicates that the transportation of citrus fruits from Florida is much more costly than that of the general [fol. 2578] run of traffic." The factors which are responsible for this more costly transportation of citrus fruits, as shown by complainants' and defendants' evidence, are set forth in detail by the Commission and the conclusion is reached (p. 757) that "citrus fruit, like other perishable traffic, is given a specialized, expedited service which

is undoubtedly more expensive than the ordinary run of freight and that both the eastern and southern carriers have equipped their plants and operating organization to this end." It therefore follows that the use of system average freight car-mile costs to estimate the expense of transporting citrus fruit does not reflect the full costs for either northern or southern lines, and results in a figure which in an indeterminable degree is necessarily less than the cost of handling citrus fruit.

Where the cost of handling a particular traffic has been found to be, or is conceded to be, more expensive than the general run of traffic, the use of system averages for estimating the cost of handling the particular traffic has been justified by the Commission.

In Georgia Public Service Commission vs. Atlantic Coast Line R. R. Co., 186 I. C. C., 157, 184, cost studies were introduced by the Atlantic Coast Line and by the Commission to approximate the expense of the transportation of logs between points in Florida. It was there proved that the costs of handling traffic between points in Florida were greater than those of handling system traffic generally.

In the cost study used in the Georgia Public Service Commission Case, supra, prepared by Mr. George Lamb, General Auditor of the Atlantic Coast Line, operating expenses allocated to Florida were to a large extent based on [fol. 2579] system averages. The system averages were not and could not be questioned. As to the use of these figures the Commission said (p. 184):

"From the foregoing it is apparent that the operating expenses allocated by defendant to Florida are not actual but constructive expenses, and that they are understated to an unknown extent. In view of this fact, system figures, including Florida, which are not in question, may be utilized as the basis for approximating the cost of transporting logs in that State. Ordinarily it would be unsound to use a system unit cost to determine the cost in a particular State, but since it is indisputable that unit costs are higher in Florida than elsewhere on the system, it seems clear that system unit costs may be used to find a cost that may be said to be less than the cost in Florida."

To paraphrase the Commission's language, in accordance with complainants' and defendants' evidence in this record, and in accordance with the Commission's finding with respect thereto, since it is indisputable that the unit costs for the transportation of citrus fruit are undoubtedly higher than for handling the ordinary run of freight, it seems clear that system unit costs may reasonably be used to estimate a cost that may be said to be less than the cost of handling citrus fruit.

Certainly the southern lines can not object to the use of system average unit costs to estimate the cost of handling citrus fruit or other perishables. Not only did they present such costs in the case just referred to, but also in Docket No. 23972, R. W. Burch, Inc., et al. vs. Railway Express Agency, Inc., et al., which was a case involving rates on fresh strawberries, in carloads, from points in Florida [fol. 2580] to northern destinations. In that case the same Mr. George W. Lamb, General Auditor of the Atlantic Coast Line, testified on April 4, 1931, and introduced his exhibits Nos. 71 to 91, inclusive, which were statements purporting to show the approximate or estimated cost per car and per 100 pounds of handling strawberries in express service from various originating points in Florida over the routes actually traversed to Jersey City, N. J., and other points in Official territory. This case was decided by the entire Commission on November 7, 1933, and thereafter, on December 15, 1933, the same George W. Lamb made an affidavit, which was attached as Exhibit No. 7 to a bill of complaint filed on behalf of the Railway Express Agency, Inc., in the District Court of the United States for the Southern District of New York, alleging that the rates on strawberries prescribed by the Commission in that case were so low as to be confiscatory and deprived the plaintiffs of their property without due process of law. In this affidavit Mr. Lamb referred to the exhibits previously introduced by him in the proceedings before the Commission, and made a detailed answer to objections found by the Commission in the strawberry case to the accuracy of the cost study introduced by him.

The formula used by Mr. Lamb dealt with the year 1929 and allocated expenses upon a passenger car-mile basis, because the rates involved were for the transportation of strawberries by express service in passenger trains. Mr.

Hodkinson has used the same formula as was used by Mr. Lamb, except that he has allocated expenses upon a freight car mile, instead of upon a passenger car mile, basis, and, in addition, has made adjustments to meet the criticisms directed by the Commission against the Lamb formula in the strawberry case.

[fol. 2581] In this connection it is pertinent to quote what the Supreme Court of the United States said in Atlantic Coast Line vs. Florida, 203 U. S., 256, 260:

"We are aware of the difficulty which attends proof of the cost of transporting a single article, and in order to determine the reasonableness of a rate prescribed it may sometimes be necessary to accept as a basis the average rate of all transportation per ton per mile. We shall not attempt to indicate to what extent or in what cases the inquiry must be special and limited."

Petitioners contend that in the light of the Commission's findings as to the expensive nature of the transportation service given citrus fruit, the use of system average unit expenses per car mile is amply justified in order to approximate an average expense per freight car mile which is certainly less than that incurred in handling citrus fruit, and they respectfully seek an opportunity to present in evidence the studies previously referred to, along with the necessary supporting data, some of which is not at present a part of the record.

II

The prescribed divisions will not, in the aggregate, produce sufficient revenues to pay petitioners' operating expenses, taxes, and a fair return on their railway property held for and used in the service of transporting citrus fruit, and, therefore the order of the Commission prescribing these divisions is in violation of Section 15 (6) of the Interstate Commerce Act and in excess of the Commission's statutory powers.

Under the preceding point, petitioners showed that the prescribed divisions will not produce for the Northern lines the estimated expenses reasonably allocable to the transportation and handling of citrus fruit plus an allowance [fol. 2582] for taxes and car rental, without any allowance whatever for return on property.

But aside from this Mr. Hodkinson's figures prove beyond reasonable doubt that the divisions prescribed for the Northern lines are not sufficient, as required by Section 15 (6) of the Interstate Commerce Act, to pay their reasonable operating expenses, taxes, and a fair return on their railway property held for and used in the service of transporting citrus fruit, and that they are arbitrary, inequitable and unjust as compared with those prescribed for the Southern lines.

A brief analysis of the Commission's report upon reconsideration is necessary to afford a proper background for the following discussion. This report briefly comments upon some of the principal assignments of error contained in the first petition for reconsideration and rehearing.

The Commission justifies its failure to make definite findings with respect to relative transportation conditions and relative rate levels in the two territories by saying that it did not do so in the New England Divisions Case (66 I. C. C., 196), which was affirmed by the Supreme Court; that in the Southwestern Case (148 I. C. C., 477) divisions on all traffic except petroleum and lumber were involved, and not, as here, the divisions on a single commodity; and that even in the Southwestern Case the final result was reached in the exercise of judgment after considering all of the pertinent evidence. The prescribed divisional factors are therefore admittedly "judgment" factors.

In explanation of its failure to follow and respect principles which petitioners insist were laid down in its former decisions or in those of the Supreme Court dealing with divisions when it arrived at these "judgment" factors, the [fol. 2583] Commission asserts that its duty is "to consider each divisional controversy coming before us strictly on its own merits without regard to any fixed basis or general standard of divisions"; and that it "may well be doubted whether decisions in prior cases may properly be said to be a source of principles governing divisions, which are rather to be sought in the statute empowering us to fix divisions."

In answer to petitioners' assertion that the effect of the Commission's decision was to hold that "transportation conditions affecting the principal carriers in the South engaged in handling citrus fruit are 100 per cent more difficult than those affecting carriers in the North," the Commis-

sion said that there is no interterritorial movement today of citrus fruit for distances north and south of the gateways for which its prescribed divisional factors would reflect a two to one ratio of transportation service; that the maximum ratio for actual movements between the two territories was as 1 is to 1.77. This is at least an admission that these "judgment" factors, establish for actual hauls between the two territories, a relationship which indicates that transportation conditions affecting the principal carriers in the South are 77 per cent more difficult than those affecting carriers in the north.

The "prescribed divisional factors" are not defended as being "intended to reflect a demonstrable appraisal of transportation conditions or costs in the two territories," but on the contrary, reference is made to the original report (p. 757) where "the elements" are set forth which failed to support anything more than "conjecture" on the subject of differences in transportation conditions and costs.

It may therefore be fairly said that the "prescribed div- [fol. 2584] isional factors" are admittedly "judgment" factors, constructed without regard to any principles laid down in former Commission or court decisions, which establish a relationship for the service performed by the two sets of carriers in handling citrus fruit, 77% more favorable to the Southern lines, which relationship is not based on any "demonstrable appraisal of transportation conditions or costs in the two territories," as the statistical evidence on the subject of differences in transportation conditions and costs failed to support anything more than "conjecture" in this regard.

A further analysis of the "elements" referred to by the Commission as only sufficient to support "conjecture" shows the following:

That, judged by a mileage prorate or a first-class rate prorate, the present "northern divisions in the aggregate are low";

That the statistical evidence supports the view that transportation costs are generally higher in the South than in the Eastern group. In this connection and referring to ton mile statistics, the Commission said in its original report (p. 751):

"To sum up, we fail to find any figures in the record which serve satisfactorily as an index to the general rate levels in the two territories, although the record supports the statement we have made in other proceedings to the effect that the Southern rate level is higher, probably by more than the five per cent difference estimated by defendants."

That the ton mile statistics bearing on the relative cost of transportation in the two territories were not "essentially different from those in other cases where we have declined to express a definite opinion on comparative trans- [fol. 2585] portation costs in the two territories because of differences in average hauls and other factors."

That the Southern lines require "a greater margin of profit per traffic unit than those in the Eastern group, and that one of defendants' exhibits divides return on investment, taxes, equipment rents, joint facility rents, and uncollected revenues between freight and passenger traffic in proportion to gross operating expenses from these two classes. In 1930 the Eastern lines would have required an average of 3.40 mills per revenue ton mile to cover these items compared with 3.79 mills for the Southern roads." This is a difference of only 11.5 per cent.

And finally, that "the voluminous evidence descriptive of operating conditions can not be translated into terms and costs for the purpose of comparing the two groups of roads in this respect. In general, it indicates that citrus fruit, like other perishable traffic, is given a specialized, expedited service which is undoubtedly more expensive than the ordinary run of freight, and that *both the Eastern and the Southern carriers* have equipped their plants and operating organization to this end." (Italics added.)

What is there in any of these "elements," dealing with statistical evidence, which, according to the Commission, failed to support anything more than conjecture with respect to differences in rate levels, transportation conditions or costs in the two territories that could possibly justify divisional factors for Southern lines as much as 77 per cent greater than for Northern lines?

In the light of this analysis, we ask the Commission's earnest consideration of the statistical results shown by Mr. Hodkinson in Appendix A.

The minority report herein (four Commissioners dis-
[fol. 2586] senting), found that the prescribed divisional factors were "much too favorable to the Southern lines" and that "the disparity in the cost of handling this citrus fruit traffic, as between the two regions" was not "materially greater than the disparity in the cost of handling all traffic."

Mr. Hodkinson's figures more than support the minority view and by the application of precisely the same yard stick to the transportation of citrus fruit by the Northern and Southern lines, show in startling relief the absolutely inequitable and unjust division of joint revenues derived from citrus fruit that would result from the application of the prescribed divisional factors.

In recognizing its obligation under the statute to prescribe divisions that shall be "equitable as well as just and reasonable," the Commission in its report on reconsideration referred to the case of P. & W. Va. Ry. Co. vs. P. & L. E., 61 I. C. C., 272, 283, where it was said:

"We are not prevented by the provision above quoted from taking into consideration any circumstances and conditions which we may deem to have weight in measuring the justice and reasonableness of divisions; but it is an intent clearly disclosed that we shall keep continually in view the public interest, the public need for a transportation system strong in all its parts, and the consequent necessity that carriers shall receive compensation fairly proportioned to the amount and character of the service which they perform and adequate to enable them to perform it efficiently."

No one can rise from reading Mr. Hodkinson's affidavit (Appendix A) without coming to the conclusion that the Commission has failed to keep continually in view the ne-
cessity that the Northern carriers shall receive compensa-
[fol. 2587] tion fairly proportioned to the amount and character of the service which they perform and adequate to enable them to perform it efficiently.

The following table is compiled from Mr. Hodkinson's Exhibit No. 4 for Northern lines and No. 6 for Southern lines:

Difference between estimated expenses shown by Hodkinson study and gross revenue per car from prescribed divisions

	Northern lines Available for return on investment (A. C. L. origins)	(S. A. L. origins)	Southern lines Available for return on investment A. C. L.	S. A. L.
Altoona.....(PRR)	$9.09*	$9.02*	$98.02	$91.37
Baltimore.....(PRR)	18.69	18.60	98.72	89.58
Baltimore.....(B&O)	18.84	21.03	94.23	94.07
Buffalo.....(PRR)	26.07*	28.55*	106.18	95.81
New York.....(PRR)	7.62*	7.75*	105.32	99.17
Philadelphia.....(PRR)	1.59	2.51	105.81	102.97
Philadelphia.....(B&O)	2.70	5.33	103.34	105.66
Pittsburgh.....(PRR)	15.39*	14.98*	100.41	93.67
Pittsburgh.....(B&O)	10.24*	7.56*	100.54	98.15

* Indicates deficiency under estimated expense.
Note A—"Estimated expense" includes operating expenses, car rental, and an allowance for taxes.

It is unnecessary to repeat here the explanation of the formula used by Mr. Hodkinson (supra, p. 5). It should be noted, however, that the difference between the estimated expense and gross revenue per car shown above, for the Atlantic Coast Line and Seaboard Air Line, are not the same as appear in column 7 of Exhibit 6. This is because the estimated expenses, south of Richmond shown in column 1 of Exhibit 6, include (as is shown by Exhibit No. 5) as [fol. 2588] a part of the bare cost of conducting transportation, a return of 5¾% calculated in accordance with the formula. The revenues received by the Pennsylvania and Baltimore & Ohio as shown on Exhibit 4, were not sufficient to make any such allowance and the estimated expenses north of Richmond, shown in column 1 of Exhibit 4 only included operating expenses, car rental and an allowance for taxes and as thus computed, showed a deficiency in the aggregate of $54,403.70.

In arriving at the results shown in the above table, the allowance for 5¾% return on the investment of the Southern lines, included as a part of the estimated expense (Exhibit No. 5) was deducted from the estimated expense south of Richmond shown in column 1, Exhibit 6, and added to the difference between estimated expense and revenue of Southern lines shown in column 7 of Exhibit 6, so as to put the estimated expense of Northern and Southern lines on a precisely similar basis.

The amount thus available for return on investment per car, computed in accordance with exactly the same formula

for both sets of lines, for the Northern lines ranges from nothing to $21.03, and for the Southern lines from $89.58 to $106.18.

In the aggregate on the 15,644 cars included in the study, the Northern lines would have received no return on investment, and there would have been a deficiency as above stated, of $54,403.70 under the estimated expenses, plus car rental and taxes. (Ex. No. 4)

On the other hand, the Southern lines would have received in the aggregate as available for return on investment the sum of $1,595,313.00 in excess of estimated expenses plus car rental and taxes, or 12.93 per cent. (Ex. No. 7)

These figures should speak for themselves. They elo- [fol. 2589] quently deny the equity or justice of the prescribed divisions, for no matter what criticisms may be offered against the formula itself or against the use of system average units to estimate costs, they show clearly and impressively, by the use of the same yardstick, that the prescribed divisions are far too favorable to the Southern lines.

III

The prescribed divisions were determined by the Commission with reference to the movement of citrus fruit during the season of 1928-1929 and in consideration of the "practical effects" of these divisions upon the revenues of the two respective sets of carriers. Since the 1928-1929 season the volume of citrus fruit traffic moving all-rail to New York and other Atlantic port cities, which constitutes the large preponderance of the traffic to Trunk Line and New England territories, has so substantially decreased and conditions have so materially changed, that divisions prescribed with reference to conditions as they existed in the season of 1928-1929 have become and will be even more unreasonable and inequitable for the future than petitioners were inclined to believe.

The one outstanding fact on this record as to the dissemination of citrus fruit traffic is that New York and other Atlantic port cities take the bulk of the Florida citrus fruit tonnage moving to trunk line territory. For example, during the 1928-1929 season, as shown by the original report,

New York, Philadelphia and Baltimore received by rail an aggregate of 17,845 cars distributed as follows:

Destination.	No. of cars.
New York	11,358
Philadelphia	4,772
Baltimore	1,715
	17,845 cars

[fol. 2590] Bearing in mind that during the 1928-1929 season a total of 29,193 cars moved to all destinations in trunk line and New England territories, it will be seen that 61 per cent of the traffic moved by rail to the three port cities named. The record and the Commission's original report likewise show that Northern lines' divisions to these port cities were on a very much lower level than to other points in the territory. For illustration, at page 737 of the original report the Commission said:

"For their haul of 253 miles from Richmond to Philadelphia the northern lines now get 19 cents whereas for the haul to Harrisburg, 12 miles shorter, they exact 26.5 cents. To Scranton, 376 miles from Richmond, 40 cents is charged, compared with 37 cents to Pittsburgh, more distant by 40 miles, and 38 cents to Buffalo, 174 miles farther. To Altoona, 358 miles from Richmond, they charge 37 cents as against 22.5 cents at New York for a haul only 22 miles shorter."

The water competitive influences on the divisions to the port cities was explained of record but the Commission was apparently unwilling to accept the explanation. It did, however, recognize it to the extent that its order substantially maintained existing revenues of Northern lines at these port cities, and when it came to prescribing divisions for the future the Commission obviously constructed its scheme of divisions having regard to the heavy movement to the pivotal port cities as we shall subsequently demonstrate. On the total movement of 29,193 cars in the 1928-1929 season, the revenue accruing to the Northern lines, as settled, was $2,630,717.84. Under the prescribed divisions Northern lines on this same movement will receive approximately $2,317,018.86 or about $313,698.98 less than the rev-

enue as settled. Since, as previously stated, the divisions [fol. 2591] to the three port cities as settled were on a much lower level than to other points in trunk line and New England territories, it follows that in determining the aggregate revenue effect that its decisions should have, or, as the Commission expressed it, the "practical effects" of the divisions fixed, the Commission began with the points of heaviest consumption, viz., New York, Philadelphia and Baltimore, New York being the most important.

Exhibit No. 2 attached to Appendix A of this petition is a revenue test comprising 18,693 cars of citrus fruit originating on the Atlantic Coast Line, Seaboard Air Line, Florida East Coast moving via the Richmond gateway and delivered by the single line routes of either the Pennsylvania Railroad or the Baltimore & Ohio Railroad in the 1928-1929 season. The number of cars included in the test to each destination was as follows:

Destination.	No. of cars.
New York	11,036
Philadelphia	4,431
Baltimore	1,512
Pittsburgh	1,302
Buffalo	359
Altoona	53
	18,693 cars

The first report of the Commission shows (p. 742) that the Pennsylvania and Baltimore & Ohio made final delivery of 21,558 cars, so that the test above referred to includes 86.5 per cent of all cars finally delivered by either of these carriers.

On the 11,036 cars moving to New York, included in the test, (Exhibit 2) the aggregate effect of the prescribed divisions is to increase northern lines' revenues over and [fol. 2592] above the revenues as settled by $9,671.03. To Philadelphia the aggregate effect of the prescribed divisions, covering the 4,431 cars included in the revenue test, is to reduce northern lines' revenues as settled by $9,614.52; while to Baltimore the same test, covering 1,512 cars, shows a reduction in northern lines' revenues of $2,952.08. Taking the entire movement of 16,979 cars to these three port cities included in Exhibit No. 2, constituting 58 per cent of the

total movement to trunk line and New England territories in the 1928-1929 season, the aggregate reduction amounted to $2,895.57 or about 17 cents per car. But to interior points in Trunk Line territory and to destinations in New England, where northern lines handled the traffic on a more normal basis of divisions, the aggregate reduction on the remaining 42 per cent of the traffic (12,214 cars) that moved in the 1928-1929 season, amounts to about $310,803.41, or an average reduction of about $25.50 per car. The extent of these reductions is demonstrated and exemplified by the revenue test, Exhibit No. 2, attached to Appendix A which shows the following reductions from the revenue, as settled:

Destination.	No. cars.	Average reduction per car.
Pittsburgh	1,302	$35.98
Buffalo	359	18.65
Altoona	53	44.22
	1,714	$32.57

The foregoing facts demonstrate the proposition first advanced, namely, that the Commission looked at the pivotal eastern port cities of New York, Baltimore and Philadelphia; that it apparently aimed to about maintain existing revenues of the northern lines at those important points, and then reduced all other divisions to a level in relation [fol. 2593] to the low New York, Philadelphia and Baltimore proportions.

Since the hearings in this case were closed there has taken place a material change in conditions and a tremendous decrease in the all-rail traffic to the port cities. Water competition between Florida and the North Atlantic ports has primarily been responsible for this shift in tonnage. For example, in the season beginning November 1, 1932, and ending June 30, 1933, a season coextensive with the 1928-29 test period, the Baltimore and Ohio and the Pennsylvania handled the following numbers of cars to the ports named:

Ports.	No. of cars.
New York	4,825
Philadelphia	3,596
Baltimore	1,223
Total	9,644 cars

In the period beginning October 1, 1933, and ending March 31, 1934 (excluding Baltimore and Ohio figures for March), the movement was as follows:

Ports.	No. of cars.
New York	766
Philadelphia	753
Baltimore	585
Total	2,104 cars

Bearing in mind that this October to March period largely comprised the season of heavy movement of citrus fruit, it will be seen that, compared with the all-rail movement of 17,845 cars to these three ports in the 1928-29 season, there has been such a drastic curtailment in the movement to the port cities as to require a readjustment of any [fol. 2594] scheme or plan of divisions that was so obviously based on the former volume of traffic and its distribution between the port cities and interior points. Petitioners therefore earnestly request reconsideration of the prescribed divisional factors to take into account this material change in conditions.

IV

The prescribed divisions were determined by the Commission upon a record made and closed on December 22, 1931. Since that time voluminous evidence has been introduced in Docket No. 24160, (a part of which proceeding was included in the record upon the basis of which the divisions on citrus fruit to points in C. F. A. territory were prescribed) descriptive of operating conditions surrounding the movement of vegetables from Florida and fruits and vegetables from other portions of Southern Territory, which evidence clearly shows that the Commission erred in some of its more important findings with respect to the alleged burdens borne by southern lines in connection with the transportation of citrus fruit.

Complainants and defendants operating testimony and the findings of the Commission in this case (p. 757) show that the transportation and operating conditions affecting the movement of citrus fruit and other perishables generally, including vegetables from Florida and fruit and vege-

tables from the South, are substantially the same (R. 4583-4594, 4694). At the February, 1934, hearing in Docket No. 24160, W. L. Dixson, Assistant Transportation Inspector of the Atlantic Coast Line, testified in detail as to the operating conditions surrounding the transportation of vegetables from Florida. Among other things, he said that—

"It is a well known fact that vegetables are handled at the same time; are produced in the same general territory and moved in the same trains with citrus" (R. 24160, p. 4470).

[fol. 2595] And also—

"Citrus fruit and vegetables move largely at the same time" (R. 24160, p. 4479).

Again—

"All of our perishable trains are handled in a similar manner" (R. 4531).

He further testified that February, March and April are the heaviest vegetable shipping months from Florida (R. 24160, pp. 4479, 4512) which period, as found by the Commission in its first report, coincides with the period of heavy movement of citrus fruit.

In the light of these facts, the evidence of complainants with respect to the movement of *vegetables* as now contained in the record in Docket No. 24160 will be found to be contradictory of, and in conflict with, the evidence with respect to the movement of *citrus fruit* as introduced in Docket No. 24069, and this evidence is such as to demonstrate that the Commission erred in some of its more important findings with respect to the alleged burdens borne by Southern lines in connection with the transportation of citrus fruit.

For example, at p. 743 the Commission found that—

"To a very limited extent complainants operate trains consisting entirely of citrus fruit south of the Florida gateways, but from the latter to Richmond they operate no such trains, nor do they have solid trains of perishable freight, presumably because of lack of sufficient freight of that character to utilize fully the available motive power for the train."

Assuming, in accordance with complainants' testimony, that vegetables are handled at the same time, produced in the same general territory and move in the same trains [fol. 2596] with citrus, this finding of the Commission that the Southern lines do not either operate or have "solid trains of perishable freight" from the Florida gateways to Richmond, is directly contradicted by complainants' later testimony with respect to the movement of vegetables and other perishables.

This is shown by the testimony of W. L. Dixson (Exhibit No. 1214, R. 4514, et seq.). In his Exhibit No. 1214, he undertook to trace the movement of six train loads of perishables, three from Sanford, Florida, and three from Lakeland, Florida, during the 1930-31 season. And he stated that these six trains were "representative of the general movement."

An analysis of this exhibit, in connection with the cross-examination of the witness, clearly indicates that trains consisting almost wholly of perishables do move from terminal to terminal northbound from Jacksonville to Richmond. The following table indicates the number of cars of perishables and other freight which so moved in the six representative trains which were analyzed by Mr. Dixson:

	Number of carloads perishables.	Other freight.
Train No. 1	58	6
Train No. 2	60	1
Train No. 3	62	1
Train No. 4	54	11
Train No. 5	70	0
Train No. 6	71	0

As being in conflict with the finding of the Commission, we further point to Mr. Dixson's testimony (R. 4523), where he said—"we operate a number of solid perishable trains during the season." See also Exhibit 1218 showing [fol. 2597] the number of cars and tons handled in perishable trains "operating between Savannah, Ga., and Richmond, Va., a distance of about five hundred miles." See also R. 4551—"These are main line perishable trains." Prior to the reduction in schedule time effective September 29, 1930, the former rating "permitted the operation of trains with about ninety cars in each train" (R. 4552).

In making up these "main line perishable trains" Mr. Dixson testified that in order to secure better train loading they were filled out with cars loaded with high class commodities. As illustrative of his testimony, he said (R. 4552)—

"To show how this works out in actual practice and using the month of March, 1932, as an example and starting with Savannah, I find that on March 24th we had 174 cars of perishable for movement east. The car limit from Savannah to Florence is 70 cars; therefore, we had two full trains with 34 cars left over. We actually operated three trains, the first with 45 cars of perishable, the second with 63 cars of perishable and four other cars, while the third train handled 66 cars of perishable and one other car. On March 29th we had 156 cars of perishable to move, equivalent to two full trains, with 16 cars over. On this date there was no available fill out, so three trains were operated, handling 60, 49 and 47 cars of perishable, respectively."

Many other examples were given.

A summary of the witness's testimony is as follows (R. 4528):

"Q. I was merely commenting upon the fact and asking if his exhibit shows, regardless of the shippers of the 60 cars, when he finally looked the situation over, from Jack- [fol. 2598] sonville to Richmond, if he has not seven solid trains of perishables—between 55 and 60 cars—moving solid between those terminal points shown on that exhibit in every case, and I think he said he did have that solid train movement of perishables."

"Q. Is that correct, Mr. Dixson?"

"A. Almost solid trains of perishables, yes sir."

Another example: At page 743, speaking of diversion and reconsignment, the Commission said:

"The widespread practice of diversion prevents the carriers from making up solid trains at or near concentration points and running them through to the principal junction points."

In the light of the preceding analysis of Dixon's Exhibit No. 1214 in Docket No. 24160, it is clear that the Commission was misled and confused by the previous testimony of

this witness in Docket 24069, and particularly by his Exhibit No. 70 introduced therein. This exhibit was similar in form to his Exhibit No. 1214, and was introduced in an effort to prove the same thing with respect to citrus fruit that he afterward attempted to prove with respect to vegetables. The Commission accepted his testimony with respect to citrus fruit in Docket 24069, and we submit, in part at least, based its findings and comments upon the burdensome character of the practice of diversion applicable to the Southern lines upon this exhibit. That this is true appears more clearly by reference to Mr. Dixon's testimony in Docket 24069. Speaking with reference to the trains shown in his Exhibit No. 70 he said (r. 288) that these trains were "representative of the general movement." At the same time he [fol. 2599] stated that "in the territory south of Waycross we operate very very few trains, consisting entirely of citrus fruit" (R. 288). This was nothing more than the statement of a half truth. His later testimony in Docket 24160 shows clearly that the general practice of his company is to operate trains into Jacksonville, High Springs, and from Jacksonville to Waycross consisting almost, if not entirely, of perishables, that is, citrus fruit and vegetables.

Referring to a train of 56 cars of citrus fruit shown on his Exhibit 70, Mr. Dixon testified (R. 291) that "this particular train proceeded only a short distance before losing its identity as a train of perishables." An analysis of his Exhibit 70, in the light of his testimony in Docket 24160, will prove that this is not a correct statement, and that the train referred to, while it did not necessarily contain the same cars, yet moved as a solid train of perishables between junction points.

Referring to the same train, Mr. Dixon further testified at record 292 that his analysis was intended to point out "some of the reasons why it is not practicable for this railroad to operate solid trains of perishables through from Southern Florida to Northern junctions." It is respectfully submitted that his later testimony in Docket 24160 clearly shows that his statement is incorrect, and that, as a matter of fact, it is the general practice for the Atlantic Coast Line Railroad to operate solid trains of perishables, citrus fruit and vegetables, from Jacksonville to Savannah, Savannah to Florence, Florence to Rocky Mount and Rocky Mount to

Richmond and there deliver them to its Northern connections.

During the later hearings in Docket 24160 complainants' witnesses testified with respect to reconsignment practices [fol. 2600] and the special expenses incident thereto as applied to shipments of vegetables and other perishables (R. 4698, 4701), throwing additional light upon the same practices with respect to citrus fruit. Several of their operating witnesses testified in Docket 24160 that there was no reason, from an operating standpoint, why there should not be a charge for reconsignment and that such a charge could be made if desired (R. 4703). The fact that Southern carriers make no charge therefor is a matter of competition or policy, voluntarily adopted by them and one for which the Northern lines should not be made to suffer. All of this evidence goes far to show that the Commission erred in its finding (p. 758) that the privilege of reconsignment is undoubtedly a "heavier burden on the Southern carriers."

Another example: At page 758 the Commission found:

"The use of refrigerator cars for this traffic appears to be particularly burdensome to the Southern lines, as they are called upon for a much longer empty haul of these cars than the Eastern lines, and must keep on hand a larger supply during the shipping season to accommodate a fluctuating demand."

During the later hearings in Docket 24160 complainants' witnesses introduced further evidence with respect to the use of refrigerator cars, the percentage of empty haul involved and other burdensome conditions attending this operation as applied to vegetables (R. 4539). The figures shown for Northern lines were incorrect, and did not fairly show the situation with respect to vegetables. The same figures would be applicable to citrus fruit. Since this testimony was introduced Northern lines have made special investigations with respect to the percentage of empty move- [fol. 2601] ment of refrigerator cars involved in the handling of perishables in Official territory. The results of some of these studies appear in Mr. Hodkinson's affidavit and were used in connection with his study previously referred to (Appendix A). Northern lines earnestly desire to have all of these studies and this evidence with respect to use of refrigerator cars in Official territory considered in

connection with the movement of citrus fruit as well as in connection with the movement of other perishables in Official territory; and they believe that this evidence will strongly tend to show, if it does not convincingly prove, that the use of refrigerator cars for transporting citrus fruit, vegetables and other perishables bears as heavily upon Northern as upon Southern lines, and that the Commission erred in finding to the contrary.

V.

The divisions of the rates on citrus fruit herein complained of were erroneously and unlawfully prescribed by the Commission, and its order is in excess of its statutory powers because it based its conclusions as to the financial needs of Southern lines, incident to the transportation of a single commodity, to wit, citrus fruit, upon the average rates of return from the total business of the Southern lines.

In their former petition for rehearing and reargument petitioners' insisted that the Commission gave paramount and unwarranted weight to the alleged worse financial condition of the Southern lines (pp. 21-24). They still make this contention and say that a further analysis of the Commission's report on reconsideration furnishes additional support therefor (pp. 382, 383). But, aside from this, they further insist that, as a matter of law, the Commission can [fol. 2602] not base its conclusion as to financial needs of Southern lines incident to the handling of citrus fruit upon average rates of return from all traffic, both passenger and freight, especially when the Commission itself has found in this very proceeding that citrus fruit was "by far the most lucrative traffic which the Atlantic Coast Line had."

As to the first proposition petitioners rest on what is evident from an analysis of the reports. At page 753 of its first decision the Commission gave the rates of return for the year 1930 of the principal railroads handling Florida citrus fruit. The Commission thereafter said:

"It will be observed that the rate of return of the southern lines was appreciably below that of the eastern roads."

After indicating that comparison of rate of return figures should have taken into account the greater profit from pas-

senger service in the Eastern district the Commission determined freight deficiencies of the two groups of carriers, after which it found that:

"The constructive freight deficiency of the southern roads was 7.7 per cent of their freight operating revenue, and that of the eastern lines was 6.6 per cent. *The financial condition of the southern roads is therefore less favorable.*" (Italics supplied.)

The Commission's ultimate conclusion was—

"We find nothing in the record supporting the view that the eastern lines are entitled to such a large share of the revenue as that accruing from the amounts they have withheld since November 9, 1928. *The worse financial condition of the southern lines negatives such a view.*" (Italics supplied.)

[fol. 2603] In addition there is the statement in the dissenting opinion uncontradicted by the majority, that—

"To reach their conclusions, the majority are obliged to lean heavily on history and on the fact that while both sets of lines are badly off financially, the southern lines appear to be worse off than the northern. History does not appeal to me as a factor entitled to much weight, and while financial need is doubtless important, I can not weigh it in the balance near so heavily as do the majority."

In reply to the petitioners' assertion in the former petition for reargument and rehearing that the Commission gave effect to, and in substance perpetuated, the divisional agreement entered into between the Northern and Southern lines in 1908-1910, the Commission said that, in order to give consideration to the effect of its findings on the revenues of the carriers involved, it was "necessary to take notice of the apportionment of revenues accomplished by the former agreement," and that it had expressed the view that "the divisions under that agreement could not be considered confiscatory."

In its original report at p. 759 the Commission said:

"The divisional agreement which was in force from 1908-1910 until November 9, 1928, is pertinent in two respects. (1) It may be presumed that the agreement, having been

voluntarily entered into, was not confiscatory of the property of either group of carriers when it was entered into, and the evidence of changing conditions between the dates above set forth is not convincing that it subsequently became so."

This statement is perhaps the most significant thing in the first report as showing that "financial need" was [fol. 2604] the controlling factor in the mind of the Commission, because it was presumably made in an effort to comply with the requirement stated by the Supreme Court that when "financial needs" of a weaker road are relied upon in giving divisions "larger than justice merely as between the parties would suggest" the share left to the connections must be "adequate to avoid a confiscatory result."

The report on reconsideration (pages 382 and 383) likewise sets forth rates of return from total business of the carriers concerned and concludes that the figures "indicate clearly the less profitable operations of the southern lines in the past five years and require no comment."

In another portion of the report on reconsideration the Commission said:

"The statutory mandate that in prescribing divisions 'we shall give due consideration, among other things, to * * * the amount of revenue required to pay their respective operating expenses, taxes and a fair return on their railway property held for and used in the service of transportation,' necessarily requires us to consider the practical effects of the divisions which we fix and to frame them with those effects in mind. To make the means subserve the end cannot properly be termed arbitrary action."

Petitioners therefore contend that the Commission's reports show on their face that while other facts were recited, "financial need," based on average rates of return from the total business of the carriers, was unquestionably the dominating and controlling element in the Commission's determination of the divisional factors on citrus fruit. On the [fol. 2605] other hand operating and traffic statistics pertaining to the total business of the carriers on such questions as average general rate levels, average general costs, etc., were cast aside over the earnest protest of petitioners.

We come now to the second proposition, viz., the error

of the Commission, as a matter of law, in predicating its conclusion as to "financial need" for relatively higher divisional factors on citrus fruit on average rates of return from the total business of the carriers concerned.

The basis for all divisional decisions involving "financial need" is the Supreme Court's decision in the New England Divisions Case, 261 U. S. 184, which resulted from the Commission's decision in New England Divisions, 66 I. C. C., 196. That case was regarded by the Court as a supplement to the order entered in Ex Parte 74. This is clearly shown by the following language from the opinion of the Court:

"What the Commission did was to raise the additional revenues needed by the New England lines, in part, directly, through increase of all rates 40 per cent and, in part, indirectly, through increasing their divisions on joint rates. In other words, the additional revenues needed were raised partly by a direct, partly by an indirect tax. It is not true, as argued, that the order compels the strong railroads to support the weak. No part of the revenues needed by the New England lines is paid by the western carriers. All is paid by the community pursuant to the single rate increase ordered in Ex parte 74. If, by a single order, the Commission had raised joint rates throughout the Eastern Group 40 per cent., and, in the same order, had declared that 90 per cent. of the whole increase in the joint rates should go to the New England lines (in addition to what they would receive under existing divisions), clearly nothing would [fol. 2606] have been taken from the Trunk Line and Central Freight Association carriers, in so ordering. The order entered in Ex parte 74 was at all times subject to change. The special needs of the New England lines were at all times before the Commission. That these needs were met by two orders instead of one, is not of legal significance. The order here in question may properly be deemed a supplement to, or modification of, that entered in Ex parte 74."

The complaint before the Commission in New England divisions, supra, involved the divisions of all traffic moving between that section and the remainder of the United States, and the order which was before the Court involved all joint class rates and rates that were divided on the same basis as class rates. The provisions of section 15 (6) were regarded by the Court as "an integral part of the machin-

ery for distributing the funds expected to be raised by the new rate-fixing sections," and as pointed out by the Court in the foregoing quotation, "no part of the revenues" transferred to the New England lines "is paid by the western lines. All is paid by the community pursuant to the single rate increase ordered in Ex parte 74."

In the instant proceeding we have an entirely different situation. The rates for which divisions are fixed are on a single commodity and were reduced by the Commission "quite largely in the light of evidence concerning improved conditions on the Florida lines which had arisen since the former rates were established." Certainly under the facts in the instant case, the Commission does not have the power to go as far as it has gone in using general financial need as a justification for such extremely liberal divisions on the most lucrative traffic of the Southern lines.

[fol. 2607] As the first report of the Commission itself shows, the divisions of the rates on citrus fruit are but a part of a general divisional controversy between Northern and Southern lines involving the rates on classes and all commodities between points in Official territory and points in Southern territory. The question of divisions of all interterritorial traffic other than citrus fruit is still pending before the Commission, and pursuant to the provisions of Section 15 (6) the Commission must, when that proceeding comes before it, "give due consideration, among other things," to the amount of revenue required to pay operating expenses, taxes and a fair return on railway property held for and used in the service of transportation. An analysis of the Commission's reports and order in this proceeding, involving but one commodity, shows that to an important extent the Commission gave weight to the alleged worse financial condition of the Southern lines as reflected by the average rates of return for the total business of such carriers, as we have already shown. The Southern lines have made a separate divisional case as to each important block of interterritorial tonnage, moving between Official territory and Florida. The same average rates of return from the total business of the Southern carriers that are so strongly relied upon as warranting the divisions prescribed on citrus fruit, are also relied upon in connection with divisions of the rates on other commodities or classes of interterritorial traffic. Petitioners therefore contend that the

provisions of section 15 (6) with respect to the due consideration that must be given operating expenses, taxes and a fair return on investment, must of necessity bear some reasonable relation to the ratio that the quantum and cost of the service involved bear to the total transportation service performed by the interested carriers. The point peti- [fol. 2608] tioners have in mind may perhaps be best expressed by referring to the language of Mr. Commissioner Eastman in the New England Divisions Case, 66 I. C. C., 196, 207, where, after directing that carriers proceed as expeditiously as possible to study and revise their divisions, the Commission stated:

"In making a study of such specific rates, every effort should be made to ascertain with such approximate accuracy as may prove possible the respective costs of the service performed by the various participating carriers, including in such costs *a fair share* of the charges attributable to taxes and a reasonable return upon the property. The other elements mentioned in the statute, in addition to mileage, should likewise be considered." (Italics supplied.)

The correctness of this view also finds support in the language of the Supreme Court in Beaumont S. L. & W. R. Co. et al vs. U. S., 282 U. S. 74, 87. In that case there were wide dissimilarities between the rates of return earned by individual carriers in each territory, and the Southwestern lines contended that the prescribed divisions would operate in some instances to transfer substantial sums from very weak carriers in southwestern territory to prosperous ones in western territory. The Court said:

"* * * It is not suggested that the operating expenses of each carrier attributable to the traffic in question vary as does its rate of return on its business as a whole. Nor does it appear that the carriers having the highest rates of return from their total business or from that in the territory in which they belong, move the traffic in question at comparatively low costs. Returns from total business of a carrier and the cost of handling the traffic covered by the [fol. 2609] joint rates are not dependent upon the same facts; the relation between them is slight and remote. *For aught that appears the carriers having little or no return on their total business may move the traffic in question at*

low costs and realize a satisfactory percentage of profit on that part of their business." (Italics supplied.)

In the present proceeding only one commodity is involved, which commodity the Commission as has already been noted said in the original report "was by far the most lucrative traffic which the Atlantic Coast Line had" in the period 1928-1931, inclusive. The original report further states that of the total citrus fruit tonnage from Florida during the years 1929, 1930 and 1931, 62 per cent originated on the Atlantic Coast Line.

In the light of the comparisons made in Mr. Hodkinson's affidavit, which show that, using the same formula for determining Southern lines' approximate expenses per car as was used for Northern lines, plus an allowance for taxes and car rental, the Southern lines would have received in the season of 1928-29 the additional sum of $1,595,313.00, or 12.93 per cent return on the allocable portion of their investment assignable to freight, it can hardly be denied that the citrus traffic is highly profitable to the Southern lines.

It follows that consideration of the average rates of return from the total business of the carriers in determining the financial need of the Southern lines in fixing divisions on citrus fruit is not responsive to the statutory requirement that due consideration be given to "the amount of revenue required to pay their operating expenses, taxes and a fair return on railroad property held for and used in the service of transportation" of citrus fruit, a commodity which "was by far the most lucrative traffic" which the [fol. 2610] carrier originating 62 per cent of the total traffic enjoyed. The fact that the Southern carriers may make little or no return on their total business does not entitle them to have divisions on their most lucrative traffic fixed at the expense of their connections.

To paraphrase the language of the Supreme Court the relation between the returns from the total business of the Southern lines and the cost of handling the citrus fruit traffic is slight and remote. The evidence in this record affirmatively shows that the Seaboard Air Line for example having little or no return on its total business, realizes a highly satisfactory percentage of profit from the citrus fruit traffic.

Prayer.

Wherefore, petitioners pray that a rehearing, reconsideration and reargument be granted in the above entitled case, and that pending such rehearing the order of the Commission, which by its terms becomes effective May 1, 1934, as to future divisions, and June 1, 1934, as to retroactive divisions, be postponed for 30 days or for such further period as will afford the Commission sufficient time to pass upon the merits of this petition.

In connection with the prayer for postponement of the effective date of the order, the Commission, of course, is advised that the 1933-34 shipping season is about at an end. Beginning the latter part of April the movement "begins [fol. 2611] to fall off rapidly and ceases in June." (Page 742, original report.)

Respectfully submitted, Henry Wolf Biklé, Joseph F. Eshelman, M. Carter Hall, H. D. Boynton, Thomas P. Healy, W. I. Woodcock, H. T. Newcomb, E. L. Beach, Attorneys for Petitioners.

Baltimore, Md., April 27, 1934.

Certificate of Service.

I hereby certify that I have this day served the foregoing document upon all parties of record in this proceeding by delivering copies thereof in person to Frank W. Gwathmey and by mailing a copy thereof properly addressed to each other party.

Dated at Baltimore, Md., this 27th day of April, 1934.

E. L. Beach, of Counsel for Petitioners.

[fol. 2612] Appendix "A"

Affidavit

State of Maryland,
City of Baltimore, ss:

Edwin A. Hodkinson, being duly sworn, deposes and says, that he resides in Brooklyn, New York; that he is Commerce Statistician for the Trunk Line Association, and that he was a witness at hearings in Washington, D. C., on June 29, July 2 and December 21, 1931, before Examiners Hosmer and Dillon in Interstate Commerce Commission Docket No. 24069, Atlantic Coast Line Railroad Co., et al vs. Ar-

cade & Attica Railroad Corporation, et al, and Docket No. 24160, In the Matter of Divisions of Joint Interterritorial Rates between Official and Southern Territories.

That he commenced his railroad service with the Erie Railroad in September, 1906, and continued with that Company until March, 1920, as clerk in the Freight Agent's office at Rochester, New York, where he became experienced in every phase of local freight office work, including rates and accounting; that he was transferred to the office of the Auditor of Traffic in October, 1908, where he held the position of Rate Revision Clerk, Head Clerk in charge of revision of divisions applied in settlement of interline accounts between the Erie Railroad and other railroads, Traveling Auditor, and that he was Chief Clerk in charge of Overcharge Claims and Miscellaneous Accounts for the last seven years of his employment by the Erie Railroad; that he left the railroad service in March, 1920, and engaged in business for himself as Traffic Consultant until January, [fol. 2613] 1928, during which time he handled many cases before the Interstate Commerce Commission; that since January, 1928, he has held his present position and has devoted the major portion of his time to the preparation of accounting, statistical, and other exhibits for presentation by him in formal cases before the Interstate Commerce Commission.

That the Trunk Line Association is made up of the following railroads:

The Baltimore and Ohio Railroad Company.
The Central Railroad Company of New Jersey.
The Chesapeake and Ohio Railway Company.
The Delaware, Lackawanna and Western Railroad Company.
The Delaware and Hudson Railroad Corporation.
Erie Railroad Company.
Lehigh and New England Railroad Company.
Lehigh Valley Railroad Company.
The New York, Central Railroad Company.
New York, Ontario and Western Railway Company.
Norfolk and Western Railway Company.
The Pennsylvania Railroad Company.
Reading Company.
The Virginian Railway Company.
Western Maryland Railway Company.

That its function among other things, is to represent any or all of its members in matters affecting their interests, and that in his capacity as an officer of the Trunk Line Association he has prepared a series of exhibits, annexed hereto and made a part hereof, and marked Exhibits 1 to 9, inclusive. Exhibits 3 and 5, show the approximate expense per car, and per 100 pounds, of handling citrus fruit in freight service from points of origin in Florida to Richmond, Va. (92.58% of the 1928-1929 season's movement to Trunk line and New England territories were received by [fol. 2614] Northern lines at Richmond), and from Richmond, Va., to the most important consuming points in Buffalo-Pittsburgh and Trunk Line territories. The other exhibits show basic data and significant comparisons north and south of Richmond.

That while, as is well known, it is not possible to determine the actual expense of handling any particular commodity in freight service, it is possible in his opinion reasonably to estimate the expense to a particular railroad, of handling a car in freight service one mile by the use of its system average freight expenses; that in his opinion the system average expense per car mile may properly be said to be somewhat less than the expense incurred in the transportation of a carload of citrus fruit one mile in freight service; that the record herein contains voluminous operating and other evidence which is referred to in the Commission's original report in this proceeding, and in this report the Commission specifically found that the transportation service performed in connection with citrus fruit traffic "is undoubtedly more expensive than the ordinary run of freight and that both the Eastern and the Southern carriers have equipped their plants and operating organization to this end"; that it is therefore his opinion that in this case system unit expenses per car mile may with propriety be used to estimate an expense that may be said to be less than the actual expense per car mile incurred in connection with the transportation and handling of citrus fruit.

That his Exhibit No. 1 is a statement showing for the year ending December 31, 1929, various statistics for The Baltimore and Ohio Railroad Company, The Pennsylvania Railroad, Richmond, Fredericksburg and Potomac Railroad, Atlantic Coast Line Railroad and the Seaboard Air Line Railway as follows:

[fol. 2615] Line 1—Investment in road and equipment (Accounts 701 and 702). These accounts are exclusive of materials and supplies, and cash;

Line 2—Investment in road and equipment—freight proportion;

Line 3—5¾% on investment assignable to freight;

Line 4—Total operating expenses;

Lines 5-A and 5-B—Proportion of operating expenses assignable to freight and passenger respectively, using the formula which was prescribed by the Interstate Commerce Commission for such separation;

That as shown in lines 5-C, 5-D, 5-E, and 5-F, he has deducted from the operating expenses so assignable to freight, accounts 314, 315 and 316, freight train car repairs, freight train car depreciation, and freight train car retirements, respectively, for the reason that those expenses are not ordinarily incurred in connection with privately owned refrigerator cars utilized in the transportation of citrus fruit and upon which a rental is paid of 2 cents per mile loaded and empty; that in line 5-G he has shown the net operating expenses assignable to freight; that the net operating expenses as above, assignable to freight, divided by the total operating expenses (Line 4) produce (as is shown in line 5-H) the following percentage ratios of the former to the latter, viz: 67.82% for the Baltimore and Ohio Railroad; 60.02% for the Pennsylvania Railroad, 48.30% for the Richmond, Fredericksburg and Potomac Railway, 56% for the Atlantic Coast Line Railroad, and 60.43% for the Seaboard Air Line Railway; that he has applied the percentages thus obtained to the respective total investments in road and equipment (Line 1) and to the total railway taxes (Line 6) to obtain the amount of said investment assignable to [fol. 2616] freight as shown in Line 2, and to determine the proportion of railway taxes assignable to freight (Line 7).

That based upon the amounts of the investment thus assigned to freight he has computed a 5¾% return for each road (Line 3); that he then obtained the operating expenses per freight car mile by dividing the net system operating expenses freight (Line 5-G) by total system freight car miles, excluding caboose (Line 8) and that he likewise obtained the expense per freight car mile for taxes (Line 10) and for the 5¾% return on investment (Line 11) by divid-

ing the freight proportion of the taxes (Line 7) and of the 5¾% return (Line 3) by the total system freight car miles (Line 8).

That Exhibit No. 2 is a traffic study which he has compiled from complainant's Exhibit No. 9 in this proceeding showing *all* shipments of citrus fruit originating in Florida on the Atlantic Coast Line Railroad, Florida East Coast Railway and Seaboard Air Line Railway destined via the Richmond gateway to Baltimore, Philadelphia, and Pittsburgh for Baltimore and Ohio Railroad delivery and to Altoona, Baltimore, Buffalo, New York, Philadelphia and Pittsburgh for Pennsylvania Railroad delivery; that this exhibit shows points of origin, short line miles, total car miles, number of cars, average load, rate, charges, revenue as settled by Northern line, Florida arbitrary in cents per 100 pounds and Florida arbitrary revenue, net revenue, per cents and revenue accruing to lines north and south of Richmond under the divisions prescribed by the Interstate Commerce Commission; that as to each destination for each delivery he has shown the average weighted haul south of Richmond, obtained by dividing total car miles by total cars, the average load per car, the average charge per car and [fol. 2617] per 100 pounds; the average revenue per car and per 100 pounds as settled by Northern lines, the average Florida arbitrary revenue per car and per 100 pounds; the average revenue per car and per 100 pounds accruing to lines north and south of Richmond respectively, under the divisions prescribed by the Interstate Commerce Commission.

That his Exhibit No. 3 is a statement showing the estimated expense per car and per 100 pounds (and the average load per car of citrus fruit originating on the Atlantic Coast Line and Seaboard Air Line Railway, respectively) of transporting Citrus Fruit via Richmond, Fredericksburg and Potomac Railroad, Potomac Yard, thence Pennsylvania Railroad or Baltimore and Ohio Railroad to the following destinations:

Pennsylvania Railroad delivery:

Altoona, Pa.
Baltimore, Md.
Buffalo, N. Y.
New York, N. Y.
Philadelphia, Pa.
Pittsburgh, Pa.

Baltimore and Ohio Railroad delivery:
Baltimore, Md.
Philadelphia, Pa.
Pittsburgh, Pa.

that he has shown separately the figures for the Richmond, Fredericksburg and Potomac and the Pennsylvania Railroad and Baltimore and Ohio Railroad to the respective destinations and has combined them under column headed "Combined Expenses per car."

That he has taken from Exhibit No. 1 the figures shown under heading "Operating Expenses per total car mile basis" to compute "total operating expenses," and "taxes"; that he has made no allowance for return on in-
[fol. 2618] vestment; that these basic figures were computed as he has explained in connection with his Exhibit No. 1; that he obtained the operating expenses for the loaded haul by multiplying the expense per car mile by the distance hauled, for example, the loaded haul from Richmond to Potomac Yards is 110 miles and from Potomac Yards to New York the loaded haul is 236 miles. These figures, multiplied by the per total car mile expense of 9.05994 cents for the Richmond, Fredericksburg and Potomac and 10.95445 cents for the Pennsylvania Railroad, show per car expenses for the loaded haul of $9.97 for the Richmond, Fredericksburg and Potomac and $25.85 for the Pennsylvania Railroad; that he has allocated the expense for the empty haul on basis of the ratio of empty to loaded mileage of refrigerator cars and insofar as the 89% ratio of the Pennsylvania Railroad is concerned, it is based upon the records of that company covering privately owned and railroad owned refrigerator cars for the six years 1928 to 1933, inclusive; that the per car expenses for the other Pennsylvania Railroad and Baltimore and Ohio Railroad destinations were computed in exactly the same manner as is outlined above in connection with the haul from Richmond to New York; that the ratio of 85% empty to loaded mileage for the Baltimore and Ohio Railroad is based upon the records of that Company covering loaded and empty mileage of refrigerator cars for the period July 1, 1928, to December 31, 1933.

That since the Richmond, Fredericksburg and Potomac Railroad, particularly as to citrus fruit traffic, is almost wholly a bridge carrier as he hereinafter shows, it reason-

ably follows that its ratio of empty to loaded refrigerator car mileage is in excess of that of the Pennsylvania Railroad or the Baltimore and Ohio Railroad and that a ratio of 90% is a conservative estimate; that he applied the ratio [fol. 2619] of empty to loaded movement to the expense previously determined for the loaded haul (as an illustration the estimated expense for the loaded movement from Potomac Yards to New York is $25.85, the ratio of empty to loaded movement is 89%, and 89% of $25.85 is $23.01); that he will later explain why in his opinion this allocation of expenses is justified; that 2 cents per mile is the actual rental paid to owners of freight refrigerator cars for both loaded and empty movement and that the car is hauled 236 miles loaded and 89% of 236 miles, or 210 miles, empty, between Potomac Yards and New York, a total of 446 miles; that he obtained his allowance per car for taxes by multiplying the allocated taxes per car mile by the combined loaded and empty haul; that from the total estimated expense thus computed, he has deducted the estimated transportation cost attributable to ice in bunkers based on 1.65 mills per ton per mile as determined by the Commission "In re Refrigeration Charges on Fruits, etc., from the South, 151 I. C. C. 649, 672."

That the expense per car would be the same from Richmond to the respective destinations shown above regardless of the origin point in Florida; that in Exhibit No. 4 he has reproduced the revenue figures and various averages shown in Exhibit No. 2 and in addition thereto he has shown (Column 1) to Altoona, Baltimore, Buffalo, New York, Philadelphia and Pittsburgh, Pennsylvania Railroad delivery and to Baltimore, Philadelphia and Pittsburgh, Baltimore and Ohio Railroad delivery, the estimated expense per car north of Richmond as shown in Exhibit 3, that he has applied the difference between this expense and the revenue per car accruing to carriers north of Richmond under the divisions prescribed by the Interstate Commerce Commission (Col- [fol. 2620] umn 3) to the total cars moving from Atlantic Coast Line Railroad and Seaboard Air Line Railway origins, respectively, to the various destinations located on the Baltimore and Ohio Railroad and Pennsylvania Railroad; that despite the fact that he has made no allowance for return on investment, the total estimated expense for Northern lines on the 15,644 cars covered by the exhibit

exceeded the total revenue under the prescribed divisions in the amount of $54,403.70, an average of $3.48 per car; that to the extent that the expense of handling citrus fruit exceeds the system average expense of the Pennsylvania and Baltimore and Ohio Railroads, this estimated expense would be greater.

That Exhibit No. 2 covers 18,693 cars, while Exhibit No. 5, covers only 15,644 cars, this is due to the fact that the former exhibit covers 3,049 cars originating on the Florida East Coast Railway, and that Exhibit No. 5 has been confined to single line hauls south of Richmond.

That Exhibit No. 5 is a statement showing the expense per car and per 100 pounds of transporting citrus fruit for various weighted hauls from all Florida origins located on the Atlantic Coast Line Railroad and Seaboard Air Line Railway to Richmond, Va., to the following destinations:

Destination.	Delivering Road.
Altoona, Pa.	P. R. R.
Baltimore, Md.	B. & O. R. R.
Baltimore, Md.	P. R. R.
Buffalo, N. Y.	P. R. R.
New York, N. Y.	P. R. R.
Philadelphia, Pa.	B. & O. R. R.
Philadelphia, Pa.	P. R. R.
Pittsburgh, Pa.	B. & O. R. R.
Pittsburgh, Pa.	P. R. R.

[fol. 2621] that the weighted hauls and average loads to the respective destinations are as shown in his Exhibit No. 2; that he has taken the basic figures shown on Exhibit No. 4 representing operating expenses per total car mile, taxes and the allowance for return on investment from Exhibit No. 1; that the estimated expense per car (loaded and empty), rental and taxes are computed in precisely the same manner as the similar computations made in Exhibit No. 3, and his explanation in connection with Exhibit No. 3 also applies to this exhibit; but that in addition Exhibit No. 5 shows for Southern lines as a part of the bare expense of conducting transportation, a return of 5¾% on their respective investment in road and equipment assignable to freight, and the figure so shown is obtained by mul-

tiplying the per car mile expense by the combined loaded and empty haul; that he has based the ratio of empty to loaded movement on the figures of record in No. 24160 which were introduced by an operating witness representing the Atlantic Coast Line Railroad.

That in Exhibit No. 6 he has compared the revenue per car which would accrue to the carriers south of Richmond under the prescribed divisions with the estimated expense per car including as a part of the bare cost of conducting transportation as previously described a return of 5¾% on the investment assignable to freight, as shown in Exhibit No. 5; that he has reproduced in Exhibit No. 6 the figures shown in Exhibit No. 2, covering weighted haul, weighted average per car revenue south of Richmond, total cars and total revenue south of Richmond; that in every instance the revenue per car accruing to the lines south of Richmond substantially exceeds the estimated expense per car as above described including the return of 5¾%; that [fol. 2622] the aggregate revenue under the prescribed divisions exceeds the expense (including a return of 5¾%) as above computed by $885,819.67 or an average of $56.62 per car.

That in order to show the result, in the aggregate, of applying the prescribed divisional factors to Southern lines upon precisely the same basis as shown for Northern lines in Exhibit 4, he has prepared his Exhibit 7. This exhibit shows the total differences between the estimated expense and revenue, in the aggregate, accruing to the Atlantic Coast Line Railroad and Seaboard Air Line Railroad, respectively, under the prescribed divisions without including in the estimated expense for the Southern lines the return of 5¾% previously referred to and shown in his Exhibit 5; that this exhibit shows that the total available for return on investment to the Atlantic Coast Line Railroad from all Florida origins to Richmond would be $965,438.88, or 15.31%; that the total available for return on investment to the Seaboard Air Line Railway from all Florida origins to Richmond would be $629,874.12, or 10.44%; that in the aggregate these two Southern lines would, under the Commission prescribed divisions, upon the cars included in his study, receive as available for return on investment the sum of $1,595,313.00 or 12.93%.

That in order to show the result per car of applying the prescribed divisional factors to Northern and Southern lines upon precisely the same basis, he has compiled from his Exhibits 4 and 6 the following table:

[fol. 2623] Difference between estimated expenses shown by Hodkinson study and gross revenue per car from prescribed divisions

		Northern lines		Southern lines	
		(A. C. L. origins)	(S. A. L. origins)	A. C. L.	S. A. L.
		Amount per car available for return on investment			
Altoona	(PRR)	9.09*	9.02*	$98.02	$91.37
Baltimore	(PRR)	18.69	18.60	98.72	89.58
Baltimore	(B&O)	18.84	21.03	94.23	94.07
Buffalo	(PRR)	26.07*	28.55*	106.18	95.81
New York	(PRR)	7.62*	7.75*	105.32	99.17
Philadelphia	(PRR)	1.59	2.51	105.81	102.97
Philadelphia	(B&O)	2.70	5.33	103.34	105.66
Pittsburgh	(PRR)	15.39*	14.98*	100.41	93.67
Pittsburgh	(B&O)	10.24	7.56	100.54	98.15

* Indicates deficiency under estimated expense.

Note A—"Estimated expense" includes operating expenses, car rental, and an allowance for taxes.

That in arriving at the results shown in the above table, the allowance for 5¾% return on the investment of the Southern lines, included as a part of the estimated expense (Exhibit No. 5) was deducted from the estimated expense south of Richmond shown in Column 1, Exhibit No. 6, and added to the difference between estimated expense and revenue of Southern lines shown in column 7 of Exhibit 6, so as to put the estimated expense of Northern and Southern lines on a precisely similar basis.

The amount thus available for return on investment per car, computed in accordance with exactly the same formula for both sets of lines, for the Northern lines ranges from nothing to $21.03, and for the Southern lines from $89.58 to $106.18.

Deponent further deposes and says that, in preparing his exhibits he has used the same formula as was used by a witness for the Atlantic Coast Line Railroad in Docket [fol. 2624] No. 23972 and related cases, involving rates on strawberries by express, except that the expense was allocated on a freight car mile instead of a passenger car mile basis, and certain adjustments were made to meet the criticisms of the Commission in that case. That he has added the expense of the Richmond, Fredericksburg and Potomac Railroad to that of the Baltimore and Ohio Railroad and Pennsylvania Railroad Company to points served by those

respective roads; that it is well known that the Richmond, Fredericksburg and Potomac Railroad is largely a carrier of bridge or over-head traffic, particularly as to Citrus Fruit and that this is shown by his Exhibit No. 8; that this exhibit shows that in 1929, 75.25% of the total traffic handled by the Richmond, Fredericksburg and Potomac Railroad was bridge or over-head traffic and that of the 529,624 tons of citrus fruit handled by the Richmond, Fredericksburg and Potomac Railroad only 457 tons were terminated by that line; that 99.91% of the total citrus fruit traffic was over-head or bridge traffic and that the Richmond, Fredericksburg and Potomac Railroad originated and terminated only 3.64% of all of its freight traffic; further that the total estimated expense thus obtained for the combined hauls of the Richmond, Fredericksburg and Potomac Railroad and the Baltimore and Ohio Railroad or the Pennsylvania Railroad for any given distance are less than the estimated expense for the same distance using only the system unit expense for the Baltimore and Ohio Railroad or the Pennsylvania Railroad as is shown by his Exhibit No. 9; that he has departed from the Lamb formula in increasing the allowance for taxes chargeable against the citrus fruit traffic by including an allowance for empty movement; that Mr. Lamb's failure to include such an allowance in his studies was commented upon and criticised by the Commission; and that in computing the return upon investment for the Southern lines he has also made an allowance for empty return movement.

[fol. 2625]

That the formula for estimating expenses used by him herein is not subject to the criticisms of the Lamb formula which appear in the Commission's report in Docket No. 23972 and related cases; that his study is confined to single line hauls except to the extent that the haul of the Richmond, Fredericksburg and Potomac Railroad has been combined with that of the Pennsylvania Railroad and Baltimore and Ohio Railroad, and, for the reasons appearing herein, there is no duplicating or pyramiding of the terminal cost factor by the use of system averages, such as was criticised by the Commission.

That while the formula used by him, to the extent that it employs system averages, does assume that it costs as much to transport an empty car as a loaded one, in determining the cost per car mile in his study he divided the

total freight expense, less Accounts 314, 315 and 316, by the total freight car miles both loaded and empty; that therefore even if it be assumed that it costs less to handle an empty car one mile than it does to handle a loaded one; the cost of handling a loaded car, as shown in deponent's study, is reduced to that extent, and the cost of handling an empty car one mile is consequently increased, in other words, any overstatement of the cost in one case is more than balanced by the understatement in the other.

Edwin A. Hodkinson.

Sworn and subscribed to before me this 27th day of April, A. D. 1934.

Anne Magdalene Lauer, Notary Public.

My commission expires May 6, 1935.

(Here follow tables, side folios 2626-2657)

[fol. 2626]

EXHIBIT No. 1

Statement Showing, for Year Ending 1929, Statistics of Various Carriers, Covering Book Investment, Operating Expenses, Taxes, Return on I

		Baltimore & Ohio	%		Pennsylvania R. R. (Inc. W. J. & S.)	%		Richmond, Fredericksburg & Potomac	%		
1	Investment Road and Equipment (701-702)			$894,281,621			$2,405,865,551			$33,077,754	
2	Investment Road and Equipment—Freight Proportion			606,501,795			1,444,000,503			15,976,555	
3	5 3/4% on Investment assignable to Freight(A)			34,873,853			83,030,029			918,652	
4	Total Operating Expenses			180,570,034			500,425,361			8,142,466	
5A	Total Operating Expenses (Freight)	$141,250,564	78.22		$353,671,441	70.67		$4,395,323	53.98		$3
5B	Total Operating Expenses (Passenger)	39,319,470	21.78		146,753,920	29.33		3,747,143	46.02		1
	Deductions										
5C	Freight Train Car Repairs, Acct. No. 314	$13,027,015			$43,106,209			$353,356			$
5D	Freight Train Car Depreciation, Acct. No. 315	3,967,549			9,399,207			111,420			1
5E	Freight Train Car Retirements, Acct. No. 316	1,794,336			799,032			CR2,012			
5F	Total Deductions	$18,788,900			$53,304,448			$462,764			$
5G	Net Operating Expenses (Freight)			$122,461,664			$300,366,993			$3,932,559	
5H	Percentage 5G is 4			67.82			60.02			48.30	
6	Railway Taxes			$11,965,798			$41,555,624			$681,652	
7	Railway Taxes Assignable to Freight (A)			8,115,204			24,941,686			329,338	
8	Total Freight Car Miles, (Excluding Caboose)			1,159,267,000			2,741,963,000			43,406,000	
9	Operating Expenses Per Total Freight Car Mile—5G+8 (Cents)			10.56372			10.95445			9.05994	
10	Taxes: Per Total Freight Car Mile—7+8 (Cents)			0.70003			0.90963			0.75851	
11	5 3/4% on Investment—Per Total Freight Car Mile 3+8 (Cents)			3.00827			3.02812			2.11642	

(A)–Apportioned to Freight and Passenger Service on basis of Operating Expenses.

Sources—Carriers' Reports to Interstate Commerce Commission.
Operating Statistics, Form A, Interstate Commerce Commission.

EXHIBIT No. 1

g 1929, Statistics of Various Carriers, Covering Book Investment, Operating Expenses, Taxes, Return on Investment and Total Freight Car Miles

	Pennsylvania R. R. (Inc. W. J. & S.)	%		Richmond, Fredericksburg & Potomac	%		Atlantic Coast Line	%		Seaboard Air Line	%	
81,621			$2,405,865,551			$33,077,754			$282,918,571			$292,464,550
01,795			1,444,000,503			15,976,555			158,434,399			176,736,327
73,853			83,030,029			918,652			9,109,978			10,162,339
70,034			500,425,361			8,142,466			53,431,589			42,587,557
	$353,671,441	70.67		$4,395,323	53.98		$36,308,813	67.95		$29,469,760	69.20	
	146,753,920	29.33		3,747,143	46.02		17,122,776	32.05		13,117,797	30.80	
	$43,106,209			$353,356			$5,068,631			$2,563,562		
	9,399,207			111,420			1,289,211			984,007		
	799,032			CR2,012			30,409			188,551		
	$53,304,448			$462,764			$6,388,251			$3,736,120		
61,664			$300,366,993			$3,932,559			$29,920,562			$25,733,640
67.82			60.02			48.30			56.00			60.43
65,798			$41,555,624			$681,652			$6,240,000			$3,715,003
15,204			24,941,686			329,338			3,494,400			2,244,976
67,000			2,741,963,000			43,406,000			347,558,000			277,432,000
0.56372			10.95445			9.05994			8.60880			9.27566
0.70003			0.90963			0.75851			1.00541			0.80920
3.00827			3.02812			2.11642			2.62114			3.66300

penses.

[fol. 2627]

EXHIBIT No. 2

Statement Comparing the Revenue North of Richmond as Settled by Northern Lines on the November 9, 1928–June 30, 1929 Movement from Florida to Destinations Shown with the Revenue Accruing to Lines North of Richmond Arising out of the Divisions Prescribed by the Interstate Commerce Commission

This Statement shows Origin—rate base point in Florida, Short Line Miles North and South of Richmond, Total Car Miles South of Richmond, Number of Cars, Weight, Rate, Charges, Revenue (as Settled) North of Richmond, Arbitrary in Cents per one hundred points, Arbitrary Revenue Net Revenue and Revenue North and South of Richmond arising out of the Application of the Commission Prescribed Divisions to Charges; also the following Averages: Weighted Haul Load per Car, Revenue per Car and per 100 pounds Revenue North of Richmond (as Settled) per Car and 100 pounds, Arbitrary per Car and per 100 pounds; Revenue North and South of Richmond per Car and per 100 pounds.

Index

Destinations		Origins A. C. L.	Origins S. A. L.	Origins F. E. C.
Altoona	Pages	1	12	19
Baltimore	Pages	1 to 3	12–13	19
Buffalo	Pages	3–4	13–14	19
Jersey City	Pages	4–5	14	20
New York	Pages	5 to 7	15	20
Philadelphia	Pages	7 to 9	16–17	20–21
Pittsburgh	Pages	10 to 11	18	21
Summary of Averages	Pages	22	22	22
Summary	Pages	23	23	23
Recapitulation	Pages	23	23	23

[fol. 2628]

Altoona, Pa., 358 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Origin	Basing Point	Southern Miles	Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lb. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. Decision North %	North Revenue	South %	South Revenue
Auburndale....Fla.	Auburndale....Fla.	790	790	1	32,400	$1.04	$336.96	$119.88	6	$19.44	$317.52	24	$76.20	76	$260.76
Avon Park	Avon Park	829	829	1	32,400	1.07	346.68	119.88	7	22.68	324.00	23	74.52	77	272.16
Eagle Lake	Winter Haven	800	1,600	2	65,880	1.05	691.74	243.76	6	39.53	652.21	24	156.53	76	535.21
Eustis	Eustis	755	755	1	33,480	1.02	341.50	123.88	5	16.74	324.76	24	77.94	76	263.56
Florence Villa	Winter Haven	798	798	1	33,480	1.05	351.54	123.88	6	19.49	332.05	24	79.69	76	271.85
Frostproof	Avon Park	823	4,115	5	165,555	1.07	1,771.44	612.44	7	115.89	1,655.55	24	397.33	76	1,374.11
Haines City	Haines City	813	1,626	2	66,960	1.06	709.78	247.76	7	46.87	662.91	24	159.10	76	550.68
Highland City	Bartow	803	803	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Homeland	Bartow	815	815	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Lake Hamilton	Haines City	819	819	1	33,480	1.06	354.89	123.88	7	23.44	331.45	24	79.54	76	275.35
Lakeland	Lakeland	795	795	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Ocala	Ocala	706	1,412	2	64,800	.98	635.04	239.76	5	32.40	602.64	25	150.66	75	484.38
Orlando	Orlando	774	774	1	33,480	1.04	348.19	123.87	6	20.09	328.10	24	78.74	76	269.45
Sebring	Sebring	838	838	1	33,480	1.08	361.58	123.87	6	20.09	341.49	23	78.54	77	283.04
Seville	Crescent City	710	710	1	32,400	.98	317.52	106.92	5	16.20	301.32	25	75.33	75	242.19
Thonotosassa	Tampa	792	792	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Wauchula	Wauchula	833	2,499	3	98,280	1.07	1,051.60	363.64	7	68.80	982.80	23	226.04	77	825.56
Waverly	Lake Wales	805	805	1	33,480	1.05	351.54	123.88	6	20.09	331.45	24	79.55	76	271.99
Winter Haven	Winter Haven	796	796	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Total			22,371	28	921,555		$9,671.00	$3,396.70		$578.95	$9,092.05		$2,174.61		$7,496.39
Average Weighted Haul.			799		32,913		345.39	121.31		20.68			77.66		267.73
Average per car															
Average per 100 lbs. (cents)							104.9	36.9		6.3			23.6		81.3

Baltimore, Md., 165 Miles from Richmond, Va.

Atlantic Coast Line Origins B. & O. Delivery via Richmond, Va.

Arcadia....Fla.	Arcadia....Fla.	855	4,275	5	165,240	$1.01	$1,668.92	$289.17	7	$115.67	$1,553.25	18	$279.59	82	$1,389.33
Auburndale	Auburndale	790	3,160	4	131,670	.97	1,277.20	230.42	6	79.00	1,198.20	19	227.66	81	1,049.54
Bowling Green	Wauchula	827	1,654	2	65,880	1.00	658.80	115.29	6	39.53	619.27	18	111.47	82	547.33
Crescent City	Crescent City	703	2,812	4	131,805	.91	1,199.43	230.66	5	65.90	1,133.53	20	226.71	80	972.72
Davenport	Haines City	809	3,236	4	129,600	.99	1,283.04	226.80	7	90.72	1,192.32	18	214.62	82	1,068.42
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	262,150	.92	2,340.98	635.52	4	145.26	3,195.72	19	607.19	81	2,783.79

Auburndale	Auburndale	790	3,160	4	131,670	.97	1,277.20	230.42	6	79.00	1,198.20	19	227.66	81	1,049.54
Bowling Green	Wauchula	827	1,654	2	65,880	1.00	658.80	115.29	6	39.53	619.27	18	111.47	82	547.33
Crescent City	Crescent City	703	2,812	4	131,805	.91	1,199.43	230.66	5	65.90	1,133.53	20	226.71	80	972.72
Davenport	Haines City	809	3,236	4	129,600	.99	1,283.04	226.80	7	90.72	1,192.32	18	214.62	82	1,068.42
Deland	Deland	738	8,118	11	363,150	.92	3,340.98	635.52	4	145.26	3,195.72	19	607.19	81	2,733.79
Dr. Phillips	Ocoee	790	790	1	33,480	.96	321.41	58.59	6	20.09	301.32	19	57.25	81	264.16
Dunedin	Clearwater	816	6,528	8	259,200	.99	2,566.08	453.60	7	181.44	2,384.64	18	429.24	82	2,136.84
Eustis	Eustis	755	7,550	10	332,640	.94	3,126.82	582.11	5	166.32	2,960.50	19	562.50	81	2,564.32
Florence Villa	Winter Haven	798	9,576	12	418,410	.97	4,058.58	732.22	6	251.05	3,807.53	19	723.43	81	3,335.15
Ft. Meade	Ft. Meade	819	6,552	8	262,440	.99	2,598.16	459.27	7	183.71	2,414.45	18	434.60	82	2,163.56
Ft. Myers	Ft. Myers	896	896	1	32,400	1.03	333.72	56.70	7	22.68	311.04	18	55.99	82	277.73
Frostproof	Avon Park	823	26,336	32	1,054,485	1.00	10,544.85	1,845.34	7	738.14	9,806.71	18	1,765.21	82	8,779.64
Fullers	Winter Garden	779	9,348	12	398,925	.96	3,829.68	698.12	5	199.46	3,630.22	19	689.74	81	3,139.94
Haines City	Haines City	813	4,065	5	162,000	.99	1,603.80	283.50	7	113.40	1,490.40	18	268.27	82	1,335.53
Highland City	Bartow	803	1,606	2	64,800	.98	635.04	113.40	6	38.88	596.16	18	107.31	82	527.73
Isleworth	Ocoee	787	2,361	3	97,200	.96	933.12	170.10	6	58.32	874.80	19	166.21	81	766.91
Kissimee	Kissimee	792	3,168	4	133,920	.97	1,299.02	234.37	6	80.35	1,218.67	19	231.55	81	1,067.47
Lake Hamilton	Haines City	819	2,457	3	99,900	.99	989.01	174.82	7	69.93	919.08	18	165.43	82	823.58
Lakeland	Lakeland	795	3,975	5	164,160	.97	1,592.35	287.28	6	98.50	1,493.85	19	283.83	81	1,308.52
Lake Wales	Lake Wales	810	1,620	2	65,880	.98	645.62	115.29	6	39.53	606.09	18	109.10	82	536.52
Lisbon	Umatilla	749	1,498	2	66,960	.94	629.42	117.18	5	33.48	595.94	19	113.23	81	516.19
Lucerne Park	Winter Haven	803	15,257	19	623,430	.97	6,047.27	1,090.69	6	374.06	5,673.21	18	1,021.18	82	5,026.09
Lynchburg	Haines City	793	7,930	10	329,400	.99	3,261.06	680.39	7	230.58	3,630.48	19	575.79	81	2,685.27
Orlando	Orlando	774	11,610	15	471,060	.96	4,522.18	824.36	6	282.64	4,239.54	19	805.51	81	3,716.67
[fol. 2629]															Page 2
Paolo	Sanford	758	25,772	34	1,118,205	.94	10,511.13	1,956.83	5	559.10	9,952.03	19	1,890.89	81	8,620.24
Pierson	Deland	716	5,012	7	230,400	.92	2,119.68	403.20	4	92.16	2,027.52	20	405.50	80	1,714.18
Plant City	Plant City	793	793	1	33,480	.97	324.76	58.59	6	20.09	304.67	19	57.89	81	266.87
Pomona	Crescent City	696	696	1	32,400	.91	294.84	56.70	5	16.20	278.64	20	55.73	80	239.11
Sanford	Sanford	752	8,272	11	359,910	.94	3,383.15	642.72	5	179.96	3,203.19	19	608.61	81	2,774.54
Sebring	Sebring	838	838	1	32,400	1.00	324.00	56.70	6	19.44	304.56	18	54.82	82	269.18
Seville	Crescent City	710	4,970	7	228,516	.91	2,079.44	399.89	5	114.26	1,965.18	20	393.04	80	1,686.40
Sorrento	Tavares	762	46,482	61	1,998,360	.94	18,784.58	3,497.13	6	1,199.02	17,585.56	19	3,341.26	81	15,443.32
Tampa	Tampa	810	810	1	32,400	.98	317.52	56.70	6	19.44	298.08	18	53.65	82	263.87
Thonotosassa	Tampa	792	3,960	5	162,000	.98	1,587.60	283.50	6	97.20	1,490.40	19	283.18	81	1,304.42
Umatilla	Umatilla	759	103,983	137	4,534,425	.94	42,623.60	7,925.10	5	2,267.21	40,356.39	19	7,667.71	81	34,955.89
Wauchula	Wauchula	833	2,499	3	99,090	1.00	990.90	173.41	6	59.45	931.45	18	167.66	82	823.24
Weirsdale	Leesburg	727	5,816	8	265,590	.92	2,443.43	464.79	4	106.24	2,337.19	19	444.07	81	1,999.36
Winter Garden	Winter Garden	780	780	1	32,400	.96	311.04	56.70	5	16.20	294.84	19	56.02	81	255.02
Winter Haven	Winter Haven	796	3,980	5	169,560	.97	1,644.73	296.73	6	101.74	1,542.99	19	293.17	81	1,351.56
Total			361,041	467	15,387,165		$146,705.96	$27,033.88		$8,586.35	$138,119.61		$26,005.81		$120,700.15
Average Weighted Haul:															
Average per car							314.15	57.89		18.39			55.69		258.46
Average per 100 lbs.-(cents)			773		32,949		95.3	17.6		5.6			16.9		78.4

Baltimore, Md., 165 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Arcadia Fla.	Arcadia Fla.	855	2,565	3	104,760	$1.01	$1,058.08	$183.33	7	$73.33	$984.75	18	$117.26	82	$880.82
Auburndale	Auburndale	790	15,010	19	622,080	.97	6,034.18	1,088.67	6	373.25	5,660.93	19	1,075.58	81	4,958.60
Avon Park	Avon Park	829	7,461	9	306,360	1.00	3,063.60	536.13	7	214.45	2,849.15	18	512.85	82	2,550.75
Babson Park	Lake Wales	816	4,080	5	168,120	.98	1,647.58	294.22	6	100.87	1,546.71	18	278.41	82	1,369.17
Bartow	Bartow	809	1,618	2	64,800	.98	635.04	113.40	6	38.88	596.16	18	107.31	82	527.73
Beresford	Orange City Jct	735	12,495	17	618,570	.92	5,690.84	1,082.43	4	847.43	5,443.41	19	1,034.25	81	4,656.59
Bradenton	Bradenton	842	842	1	32,400	1.00	324.00	56.70	6	19.44	304.56	18	54.82	82	269.18
Brooksville	Brooksville	762	762	1	33,480	.95	318.06	58.59	5	16.74	301.32	19	57.25	81	260.81
Brownville	Arcadia	851	1,702	2	65,880	1.01	665.39	115.29	7	46.12	619.27	18	111.47	82	553.92
Citra	Citra	687	1,374	2	65,880	.89	586.33	115.29	4	26.35	559.98	20	112.00	80	474.33
Clearwater	Clearwater	819	2,457	3	98,280	.99	972.97	171.99	7	68.80	904.17	18	162.75	82	810.22
Clermont	Clermont	778	1,556	2	64,800	.96	622.08	113.40	5	32.40	589.68	19	112.04	81	510.04
Crescent City	Crescent City	703	7,030	10	333,585	.91	3,035.62	583.77	5	166.79	2,868.83	20	573.77	80	2,461.85
Davenport	Haines City	809	9,708	12	397,440	.99	3,934.66	696.00	7	278.21	3,656.45	18	658.16	82	3,276.50
Deland	Deland	738	14,022	19	624,960	.92	5,749.63	1,093.74	4	249.98	5,499.65	19	1,044.93	81	4,704.70
Dr. Phillips	Ocoee	790	3,950	5	169,560	.96	1,627.78	296.73	6	101.74	1,526.04	19	289.95	81	1,337.83
Dunedin	Clearwater	816	7,344	9	294,840	.99	2,918.92	515.97	7	206.39	2,712.53	18	488.26	82	2,430.66
Eagle Lake	Winter Haven	800	1,600	2	67,200	.97	651.84	232.51	6	40.32	611.52	19	116.19	81	535.65
Eustis	Eustis	755	29,445	39	1,316,430	.94	12,374.44	2,303.66	5	658.22	11,716.22	19	2,226.08	81	10,148.36
Florence Villa	Winter Haven	798	26,334	33	1,098,900	.97	10,659.33	1,923.09	6	659.34	9,999.99	19	1,900.00	81	8,759.33
Fort Meade	Fort Meade	819	819	1	32,400	.99	320.76	56.70	7	22.68	298.08	18	53.65	82	267.11
Fort Myers	Fort Myers	896	15,232	17	571,230	1.03	5,883.67	999.64	7	399.86	5,483.81	18	987.09	82	4,896.58
Fort Ogden	Fort Ogden	865	2,595	3	97,380	1.02	993.28	170.42	7	68.17	925.11	18	166.52	82	826.76
Frostproof	Avon Park	823	84,769	103	3,416,580	1.00	34,165.80	6,002.90	7	2,391.61	31,774.19	18	5,719.35	82	28,446.45
Gardiner	Arcadia	847	847	1	32,400	1.01	327.24	56.70	7	22.68	304.56	18	54.82	82	272.42

Bradenton	Bradenton	842	842	1	32,400	1.00	324.00	56.70	6	19.44	304.56	18	54.82	82	269.18
Brooksville	Brooksville	762	762	1	33,480	.95	318.06	58.59	5	16.74	301.32	19	57.25	81	260.81
Brownville	Arcadia	851	1,702	2	65,880	1.01	665.39	115.29	7	46.12	619.27	18	111.47	82	553.92
Citra	Citra	687	1,374	2	65,880	.89	586.33	115.29	4	26.35	559.98	20	112.00	80	474.33
Clearwater	Clearwater	819	2,457	3	98,280	.99	972.97	171.99	7	68.80	904.17	18	162.75	82	810.22
Clermont	Clermont	778	1,556	2	64,800	.96	622.08	113.40	5	32.40	589.68	19	112.04	81	510.04
Crescent City	Crescent City	703	7,030	10	333,585	.91	3,035.62	583.77	5	166.79	2,868.83	20	573.77	80	2,461.85
Davenport	Haines City	809	9,708	12	397,440	.99	3,934.66	696.00	7	278.21	3,656.45	18	658.16	82	3,276.50
Deland	Deland	738	14,022	19	624,960	.92	5,749.63	1,093.74	4	249.98	5,499.65	19	1,044.93	81	4,704.70
Dr. Phillips	Ocoee	790	3,950	5	169,560	.96	1,627.78	296.73	6	101.74	1,526.04	19	289.95	81	1,337.83
Dunedin	Clearwater	816	7,344	9	294,840	.99	2,918.92	515.97	7	206.39	2,712.53	18	488.26	82	2,430.66
Eagle Lake	Winter Haven	800	1,600	2	67,200	.97	651.84	232.51	6	40.32	611.52	19	116.19	81	535.65
Eustis	Eustis	755	29,445	39	1,316,430	.94	12,374.44	2,303.66	5	658.22	11,716.22	19	2,226.08	81	10,148.36
Florence Villa	Winter Haven	798	26,334	33	1,098,900	.97	10,659.33	1,923.09	6	659.34	9,999.99	19	1,900.00	81	8,759.33
Fort Meade	Fort Meade	819	819	1	32,400	.99	320.76	56.70	7	22.68	298.08	18	53.65	82	267.11
Fort Myers	Fort Myers	896	15,232	17	571,230	1.03	5,883.67	999.64	7	399.86	5,483.81	18	987.09	82	4,896.58
Fort Ogden	Fort Ogden	865	2,595	3	97,380	1.02	993.28	170.42	7	68.17	925.11	18	166.52	82	826.76
Frostproof	Avon Park	823	84,769	103	3,416,580	1.00	34,165.80	6,002.90	7	2,391.61	31,774.19	18	5,713.35	82	28,446.45
Gardiner	Arcadia	847	847	1	32,400	1.01	327.24	56.70	7	22.68	304.56	18	54.82	82	272.42
Gillette	Palmetto	846	846	1	33,480	1.00	334.80	58.50	6	20.09	314.71	18	56.65	82	278.15
Haines City	Haines City	813	39,024	48	1,579,320	.99	15,635.27	2,763.78	7	1,105.52	14,529.75	18	2,615.36	82	13,019.91
Highland City	Bartow	803	7,227	9	292,680	.98	2,868.26	512.19	6	175.61	2,692.65	18	484.68	82	2,383.58
Highland Park	Lake Wales	812	812	1	33,480	.98	328.10	58.59	6	20.09	308.01	18	55.44	82	272.66
Isleworth	Ocoee	787	1,574	2	64,800	.96	622.08	113.40	6	38.88	583.20	19	110.81	81	511.27
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Kissimee	Kissimee	792	1,584	2	65,880	.97	639.04	115.29	6	39.53	599.51	19	113.91	81	525.13
Lady Lake	Leesburg	732	5,856	8	263,520	.98	2,582.50	461.16	4	105.41	2,477.09	19	470.65	81	2,111.85
Lake Alfred	Haines City	794	6,352	8	260,685	99	2,580.78	456.20	7	182.48	2,398.30	19	455.68	81	2,125.10
Lake Jovita	Lake Jovita	772	1,544	2	66,240	.96	635.90	115.93	6	39.74	596.16	19	113.27	81	522.63
Lakeland	Lakeland	795	795	1	32,400	.97	314.28	56.70	6	19.44	294.84	19	56.02	81	258.26
Lake Wales	Lake Wales	810	1,620	2	66,960	.98	656.21	117.18	6	40.18	616.03	18	110.89	82	545.32
Largo	St. Petersburg	822	2,466	3	99,360	1.00	993.60	173.88	6	59.62	933.98	18	168.12	82	825.48
Lowell	Ocala	700	2,800	4	132,840	.91	1,208.84	232.62	5	66.42	1,142.42	20	228.48	80	980.36
Lucerne Park	Winter Haven	803	1,606	2	66,960	.97	649.51	117.17	6	40.18	609.33	18	109.68	82	539.83
Lynchburg	Haines City	793	793	1	33,480	.99	331.45	58.59	7	23.44	308.01	19	58.52	81	272.93
Maitland	Winter Park	767	9,204	12	392,085	.95	3,724.81	686.15	5	196.04	3,528.77	19	670.47	81	3,054.34
Mascotte	Groveland	780	1,560	2	65,520	.96	628.99	114.66	5	32.76	596.23	19	113.28	81	515.71
Nocatee	Nocatee	858	858	1	34,830	1.02	355.27	61.04	7	24.38	330.89	18	59.56	82	295.71
Ocoee	Ocoee	780	11,700	15	502,852	.96	4,827.38	879.99	6	301.71	4,525.67	19	859.88	81	3,967.50
Okahumpka	Center Hill	745	1,490	2	67,950	.94	638.73	118.91	6	40.77	597.96	19	113.61	81	525.12
Orange Lake	Citra	694	694	1	32,400	.89	288.36	56.70	4	12.96	275.40	20	55.08	80	233.28
Orlando	Orlando	774	5,418	7	244,845	.96	2,350.51	428.48	6	146.91	2,203.60	19	418.68	81	1,931.83
Oviedo	Oviedo	769	2,307	3	104,760	.95	995.22	183.33	6	62.86	932.36	19	177.15	81	818.07
Palmetto	Palmetto	841	3,364	4	134,010	1.00	1,340.10	234.52	6	80.41	1,259.69	18	226.74	82	1,113.36
Paola	Sanford	758	3,790	5	163,125	.94	1,533.38	285.47	5	81.56	1,451.82	19	275.85	81	1,257.53
Pierson	Deland	716	6,444	9	314,280	.92	2,891.38	550.01	4	125.71	2,765.67	20	553.13	80	2,338.25
Pomona	Crescent City	696	696	1	33,480	.91	304.67	58.59	5	16.74	287.93	20	57.59	80	247.08
Sanford	Sanford	752	752	1	33,480	.94	314.71	58.59	5	16.74	297.97	19	56.61	81	258.10
Sarasota	Sarasota	854	854	1	33,480	1.01	338.15	58.59	7	23.44	314.71	18	56.65	82	281.50
Sebring	Sebring	838	838	1	32,400	1.00	324.00	56.70	6	19.44	304.56	18	54.82	82	269.18
Seffner	Tampa	803	1,606	2	64,800	.98	635.04	113.40	6	38.88	596.16	18	107.31	82	527.73
Seville	Crescent City	710	5,680	8	260,460	.91	2,370.19	455.81	5	130.23	2,239.96	20	447.99	80	1,922.20
Sorrento	Tavares	762	3,810	5	165,240	.94	1,553.26	289.17	6	99.14	1,454.12	19	276.28	81	1,276.98
Taru	Palmetto	844	844	1	32,400	1.00	324.00	56.70	6	19.44	304.56	18	54.82	82	269.18
Thonotassassa	Tampa	792	8,712	11	356,400	.98	3,492.72	623.72	6	213.84	3,278.88	19	622.99	81	2,869.73
Umatilla	Umatilla	759	15,939	21	729,360	.94	6,855.98	1,276.38	5	364.68	6,491.30	19	1,233.35	81	5,622.63
Wauchula	Wauchula	833	19,992	24	794,340	1.00	7,943.40	1,390.09	6	476.60	7,466.80	18	1,344.02	82	6,599.38
Waverly	Lake Wales	805	1,610	2	66,960	.98	656.21	117.18	6	40.18	616.03	18	110.89	82	545.32
Weirsdale	Leesburg	727	10,178	14	463,050	.92	4,260.06	810.34	4	185.22	4,074.84	19	774.22	81	3,485.84
Winter Garden	Winter Garden	780	12,480	16	520,560	.96	4,997.38	911.00	5	260.28	4,737.10	19	900.05	81	4,097.33
Winter Haven	Winter Haven	796	11,940	15	491,400	.97	4,766.58	859.96	6	294.84	4,471.74	19	849.63	81	3,916.95
Winter Park	Winter Park	769	6,921	9	298,170	.95	2,832.62	521.72	5	149.09	2,683.53	19	509.87	81	2,322.75
Yalaha	Center Hill	752	752	1	34,290	.94	322.33	60.01	6	20.57	301.76	19	57.33	81	265.00
Total			480,949	608	20,257,327		$196,507.17	$35,589.72		$11,976.10	$184,531.07		$34,320.77		$162,186.40
Average Weighted Haul:															
Average per car			791		33,318		323.20	58.54		19.70			56.45		266.75
Average per 100 lbs. (cents)							97.0	17.6		5.9			16.9		80.1

EXHIBIT No. 2—Continued

Buffalo, N. Y., 550 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Origin	Basing Point	Southern Miles	Southern Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lb. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. Decision North %	North Revenue	South %	South Revenue
Arcadia Fla.	Arcadia Fla.	855	1,710	2	64,800	$1.19	$771.12	$246.24	7	$45.36	$725.76	29	$210.47	71	$560.65
Brownville	Arcadia	851	851	1	32,400	1.19	385.56	123.12	7	22.68	362.88	29	105.24	71	280.32
Citra	Citra	687	687	1	34,470	1.07	368.83	130.99	4	13.79	355.04	32	113.61	68	255.22
Clearwater	Clearwater	819	1,638	2	65,880	1.16	764.21	250.35	6	39.53	724.68	29	210.16	71	554.05
Crescent City	Crescent City	703	1,406	2	68,265	1.09	744.09	259.41	5	34.13	709.96	31	220.09	69	524.00
Davenport	Haines City	809	809	1	33,480	1.16	388.37	127.23	6	20.09	368.28	29	106.80	71	281.57
Deland	Deland	738	5,166	7	229,140	1.10	2,520.54	870.73	5	114.57	2,405.97	31	745.85	69	1,774.69
Dr. Phillips	Ocoee	790	3,160	4	135,000	1.13	1,525.50	513.00	5	67.50	1,458.00	30	437.40	70	1,088.10
[fol. 2631]															Page 4
Dundee	Haines City	819	819	1	32,400	1.16	375.84	123.12	6	19.44	356.40	29	103.36	71	272.48
Dunedin	Clearwater	816	816	1	32,400	1.16	375.84	123.12	6	19.44	356.40	29	103.36	71	272.48
Eagle Lake	Winter Haven	800	800	1	32,400	1.15	372.60	123.12	6	19.44	353.16	30	105.95	70	266.65
Florence Villa	Winter Haven	798	7,980	10	332,460	1.15	3,823.29	1,263.34	6	199.48	3,623.81	30	1,087.14	70	2,736.15
Fort Myers	Fort Myers	896	74,368	83	2,813,220	1.21	34,039.96	10,690.52	7	1,969.25	32,070.71	29	9,300.51	71	24,739.45
Fort Ogden	Fort Ogden	865	865	1	33,525	1.19	398.95	127.40	7	23.47	375.48	29	108.89	71	290.06
Frostproof	Avon Park	823	823	1	32,400	1.18	382.32	123.12	6	19.44	362.88	29	105.24	71	277.08
Haines City	Haines City	813	10,569	13	427,680	1.16	4,961.09	1,625.21	6	256.61	4,704.48	29	1,364.30	71	3,596.79
Highland City	Bartow	803	4,818	6	194,400	1.16	2,255.04	738.72	6	116.64	2,138.40	29	620.14	71	1,634.90
Kissimee	Kissimee	792	792	1	33,480	1.15	385.02	127.22	6	20.09	364.93	30	109.48	70	275.54
Lake Alfred	Haines City	794	1,588	2	64,800	1.16	751.68	246.24	6	38.88	712.80	30	213.84	70	537.84
Lake Hamilton	Haines City	819	2,457	3	100,440	1.16	1,165.10	381.69	6	60.26	1,104.84	29	320.40	71	844.70
Lake Jovita	Lake Jovita	772	3,088	4	129,600	1.13	1,464.48	492.48	5	64.80	1,399.68	30	419.90	70	1,044.58
Largo	St. Petersburg	822	1,644	2	65,880	1.18	777.38	250.34	6	39.53	737.85	29	213.98	71	563.40
Lisbon	Umatilla	749	749	1	36,720	1.12	411.26	139.53	6	22.03	389.23	30	116.77	70	294.49
Maitland	Winter Park	767	4,602	6	196,650	1.13	2,222.15	747.25	5	98.33	2,123.82	30	637.15	70	1,585.00
Orlando	Orlando	774	2,322	3	97,200	1.13	1,098.36	369.36	5	48.60	1,049.76	30	314.93	70	783.43
Palmetto	Palmetto	841	5,046	6	204,750	1.18	2,416.05	778.04	6	122.85	2,293.20	29	665.03	71	1,751.02
Palm Harbor	Clearwater	811	2,433	3	108,270	1.16	1,255.93	411.42	6	64.96	1,190.97	29	345.38	71	910.55
Pierson	Deland	716	1,432	2	64,800	1.10	712.80	246.24	5	32.40	680.40	31	210.92	69	501.88
Sanford	Sanford	752	752	1	42,930	1.12	480.82	163.14	6	25.76	455.06	30	136.52	70	344.30
Sarasota	Sarasota	854	854	1	33,480	1.19	398.41	127.22	7	23.44	374.97	29	108.74	71	289.67
Seville	Crescent City	710	2,840	4	131,580	1.09	1,434.22	500.00	5	65.79	1,368.43	31	424.21	69	1,010.01
Thonotosassa	Tampa	792	1,584	2	64,800	1.16	798.08	246.24	6	38.88	759.20	30	227.76	70	570.32
Umatilla	Umatilla	759	1,518	2	65,880	1.12	737.86	250.35	6	39.53	698.33	30	209.50	70	528.36
Weirsdale	Leesburg	727	2,908	4	132,840	1.10	1,461.24	504.79	5	66.42	1,394.82	31	432.39	69	1,028.85
Winter Garden	Winter Garden	780	780	1	32,400	1.13	366.12	123.12	5	16.20	349.92	30	104.98	70	261.14
Winter Haven	Winter Haven	796	4,776	6	196,110	1.15	2,255.27	745.22	6	117.67	2,137.60	30	641.28	70	1,613.99
Winter Park	Winter Park	769	769	1	32,400	1.13	366.12	123.12	5	16.20	349.92	30	104.98	70	261.14
Total			160,219	192	6,429,330		$75,411.50	$24,431.75		$4,023.48	$71,388.02		$21,006.65		$54,404.85
Average Weighted Haul:															
Average per car			834		33,486		392.77	127.25		20.96			109.41		283.36
Average per 100 lbs. (cents)							117.3	38.0		6.3			32.7		84.6

Jersey City, N. J., 336 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Auburndale Fla.	Auburndale Fla.	790	12,640	16	460,080	$1.05	$4,830.84	$1,035.18	6	$276 05	$4,554.79	23	$1,047.60	77	$3,783.24
Avon Park	Avon Park	829	1,658	2	65,880	1.08	711.50	148.23	6	39.53	671.97	22	147.83	78	563.67
Babson Park	Lake Wales	816	816	1	33,480	1.06	354.89	75.33	6	20.09	334.80	23	77.00	78	277.89
Bartow	Bartow	809	4,045	5	169,020	1.06	1,791.61	380.31	6	101.41	1,690.20	23	388.75	77	1,402.86
Brookville	Brookville	762	6,858	9	315,180	1.03	3,246.35	709.16	5	157.59	3,088.76	23	710.41	77	2,535.94
Crescent City	Crescent City	703	2,109	3	100,710	.99	997.03	226.60	5	50.36	946.67	24	227.20	76	769.83
Davenport	Haines City	809	13,753	17	558,360	1.07	5,974.45	1,256.34	7	390.85	5,583.60	23	1,284.23	77	4,690.22
Deland	Deland	738	5,904	8	261,090	1.00	2,610.90	587.45	4	104.44	2,506.46	24	601.55	76	2,009.35
Dundee	Haines City	819	5,733	7	230,040	1.07	2,461.43	517.60	7	161.03	2,300.40	23	529.09	77	1,932.34
Eagle Lake	Winter Haven	800	4,000	5	163,080	1.05	1,712.34	366.93	6	97.85	1,614.49	23	371.33	77	1,341.01
Florence Villa	Winter Haven	798	7,182	9	307,710	1.05	3,230.96	692.34	6	184.63	3,046.33	23	700.66	77	2,530.30
Frostproof	Avon Park	823	7,407	9	266,490	1.08	2,878.09	672.51	6	159.89	2,718.20	23	625.19	77	2,252.90
Groveland	Groveland	783	783	1	46,980	1.05	493.29	105.71	6	28.19	465.10	23	106.97	77	386.32
[illegible]	[illegible]	[illegible]	81,709	99	1,275,120	1.07	13,643.78	2,889.03	7	892.68	12,751.20	23	2,933.78	77	10,711.00

Florence Villa	Winter Haven	798	7,182	9	307,710	1.05	3,230.96	692.34	6	184.63	3,046.33	23	700.66	77	1,341.01
Frostproof	Avon Park	823	7,407	9	266,490	1.08	2,878.09	672.51	6	159.89	2,718.20	23	625.19	77	2,252.90
Groveland	Groveland	783	783	1	46,980	1.05	493.29	105.71	6	28.19	465.10	23	106.97	77	386.32
Haines City	Haines City	813	31,707	39	1,275,120	1.07	13,643.78	2,869.03	7	892.58	12,751.20	23	2,932.78	77	10,711.00
Highland City	Bartow	803	8,833	11	356,400	1.06	3,777.84	801.90	6	213.84	3,564.00	23	819.72	77	2,958.12
Kissimee	Kissimee	792	792	1	34,560	1.05	362.88	77.76	6	20.74	342.14	23	78.69	77	284.19
Lake Alfred	Haines City	794	9,528	12	397,800	1.07	4,256.46	895.03	7	278.46	3,978.00	23	914.94	77	3,341.52
[fol. 2632]															Page 5
Lake Hamilton	Haines City	819	819	1	32,400	1.07	346.68	72.90	7	22.68	324.00	23	74.52	77	272.16
Lakeland	Lakeland	795	11,130	14	453,600	1.05	4,762.80	1,020.60	6	272.16	4,490.64	23	1,032.85	77	3,729.95
Lake Wales	Lake Wales	810	8,910	11	359,640	1.06	3,812.18	809.20	6	215.78	3,596.40	23	827.17	77	2,985.01
Lucerne Park	Winter Haven	803	2,409	3	121,860	1.05	1,279.53	274.19	6	73.12	1,206.41	23	277.47	77	1,002.06
Maitland	Winter Park	767	767	1	32,400	1.04	336.96	72.90	6	19.44	317.52	23	73.03	77	263.93
Mount Dora	Tavares	756	6,048	8	285,390	1.02	2,910.98	642.14	5	142.70	2,768.28	24	664.39	76	2,246.59
Nocatee	Nocatee	858	858	1	32,400	1.10	356.40	72.90	7	22.68	333.72	22	73.42	78	282.98
Orlando	Orlando	774	3,096	4	133,920	1.04	1,392.77	301.31	6	80.35	1,312.42	23	301.86	77	1,090.91
Palmetto	Palmetto	841	841	1	33,120	1.08	357.70	74.52	6	19.87	337.83	22	74.32	78	283.38
Palm Harbor	Clearwater	811	1,622	2	69,480	1.07	743.44	156.33	7	48.64	694.80	23	159.80	77	583.64
Pierson	Deland	716	716	1	32,400	1.00	324.00	72.90	4	12.96	311.04	24	74.65	76	249.35
Sparlin	Lakeland	798	2,394	3	98,280	1.05	1,031.94	221.13	6	58.97	972.97	23	223.78	77	808.16
Tampa	Tampa	810	1,620	2	67,140	1.06	711.68	151.07	6	40.28	671.40	23	154.42	77	557.26
Tavares	Tavares	751	1,502	2	65,880	1.02	671.98	148.22	5	32.94	639.04	24	153.37	76	518.61
Thonotosassa	Tampa	792	14,256	18	583,200	1.06	6,181.92	1,312.20	6	349.92	5,832.00	23	1,341.36	77	4,840.56
Umatilla	Umatilla	759	3,036	4	132,030	1.02	1,346.71	297.07	5	66.02	1,280.69	24	307.37	76	1,039.34
Waverly	Lake Wales	805	1,610	2	65,880	1.06	698.33	148.23	6	39.53	658.80	23	151.52	77	546.81
Winter Haven	Winter Haven	796	11,940	15	490,320	1.05	5,148.36	1,103.22	6	294.19	4,854.17	23	1,116.46	77	4,031.90
Total			197,322	248	8,131,320		$85,749.00	$18,368.44		$4,989.76	$80,759.24		$18,645.70		$67,103.30
Average Weighted Haul:															
Average per car			796		32,788		345.76	74.07		20.12			75.18		270.58
Average per 100 lbs. (cents)							105.5	22.6		6.1			22.9		82.6

New York, N. Y., 346 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Apopka ..... Fla.	Apopka ..... Fla.	769	8,459	11	361,800	$1.04	$3,762.72	$814.03	6	$217.08	$3,545.64	23	$815.50	77	$2,947.22
Arcadia	Arcadia	855	18,810	22	783,360	1.10	8,616.96	1,762.52	7	548.35	8,068.61	22	1,775.09	78	6,841.87
Auburndale	Auburndale	790	67,940	86	2,840,670	1.05	29,827.04	6,391.51	6	1,704.40	28,122.64	23	6,468.21	77	23,358.83
Avon Park	Avon Park	829	11,606	14	466,335	1.08	5,036.42	1,049.30	6	279.80	4,756.62	22	1,046.46	78	3,989.96
Babson Park	Lake Wales	816	17,952	22	728,010	1.06	7,716.91	1,638.06	6	436.81	7,280.10	23	1,674.42	77	6,042.49
Bartow	Bartow	809	17,798	22	727,155	1.06	7,707.84	1,636.03	6	436.29	7,271.55	23	1,672.46	77	6,035.38
Beresford	Orange City Jct	735	8,085	11	376,470	1.00	3,764.70	846.55	4	150.59	3,614.11	24	867.39	76	2,897.31
Blanton	Lake Jovita	766	36,002	47	1,639,080	1.04	17,046.43	3,688.11	6	983.45	16,062.98	23	3,694.49	77	13,351.94
Bradenton	Bradenton	842	87,568	104	3,491,460	1.08	37,707.77	7,855.75	6	2,094.88	35,612.89	22	7,834.84	78	29,872.93
Brooksville	Brooksville	762	42,672	56	1,860,1[illegible]	1.03	19,159.70	4,185.19	5	930.08	18,229.62	23	4,192.81	77	14,966.89
Citra	Citra	687	61,143	89	2,931,120	.97	28,431.86	6,595.10	4	1,172.45	27,259.41	24	6,542.26	76	21,889.60
Clearwater	Clearwater	819	377,559	461	15,433,020	1.07	165,133.31	34,964.48	7	10,803.11	154,330.20	23	35,495.95	77	129,637.36
Clermont	Clermont	778	5,446	7	230,040	1.04	2,392.42	517.59	6	138.02	2,254.40	23	518.51	77	1,873.91
Crescent City	Crescent	703	80,845	115	3,865,635	9[illegible]	38,269.79	8,697.76	5	1,932.82	36,336.97	24	8,720.87	76	29,548.92
Dade City	Dade City	768	4,608	6	197,595	1.04	2,054.99	444.58	6	118.56	1,936.43	23	445.38	77	1,609.61
Davenport	Haines City	809	26,697	33	1,086,525	1.07	11,625.82	2,444.72	7	760.57	10,865.25	23	2,499.01	77	9,126.81
Deland	Deland	738	70,848	96	3,195,720	1.00	31,957.20	7,188.05	4	1,278.29	30,678.91	24	7,362.94	76	24,594.26
De Leon Spgs	Deland	726	1,452	2	72,900	1.00	729.00	164.03	4	29.16	699.84	24	167.96	76	561.04
Dr. Phillips	Ocoee	790	4,740	6	205,200	1.04	2,134.08	461.70	6	123.12	2,010.96	23	462.52	77	1,671.56
Dundee	Haines City	819	29,484	36	1,216,755	1.07	13,019.28	2,737.75	7	851.73	12,167.55	23	2,798.54	77	10,220.74
Dunedin	Clearwater	816	10,608	13	426,105	1.07	4,559.32	958.83	7	298.27	4,261.05	23	980.04	77	3,579.28
Eagle Lake	Winter Haven	800	6,400	8	263,520	1.05	2,766.96	592.92	6	158.11	2,608.85	23	600.04	77	2,166.92
Eustis	Eustis	755	78,520	104	3,432,420	1.02	35,010.68	7,723.34	5	1,716.21	33,294.47	24	7,990.67	76	27,020.01
Florence Villa	Winter Haven	798	250,572	314	10,667,430	1.05	112,008.02	24,055.79	6	6,400.46	105,607.56	23	24,289.74	77	87,718.28
Forest City	Winter Garden	769	71,517	93	3,075,705	1.04	31,987.33	6,919.87	6	1,845.42	30,141.91	23	6,932.64	77	25,054.69
Ft. Meade	Ft. Meade	819	42,588	52	1,720,980	1.07	18,414.49	3,872.27	7	1,204.69	17,209.80	23	3,958.25	77	14,456.24
[fol. 2633]															Page 6
Ft. Myers	Ft. Myers	896	92,288	103	3,479,760	1.11	38,625.34	7,829.29	7	2,435.83	36,189.51	22	7,961.69	78	30,663.65
Ft. Ogden	Ft. Ogden	865	3,460	4	131,805	1.10	1,449.86	296.57	7	92.26	1,357.60	22	298.67	78	1,151.19
Frostproof	Avon Park	823	138,264	168	5,516,145	1.08	59,574.37	12,411.11	6	3,309.09	56,264.68	23	12,940.88	77	46,633.49
Fullers	Winter Garden	779	5,453	7	233,280	1.04	2,426.11	524.88	6	139.97	2,286.14	23	525.81	77	1,900.30
Gillette	Palmetto	846	16,074	19	630,720	1.08	6,811.78	1,419.07	6	378.43	6,433.35	22	1,415.34	78	5,396.44
Groveland	Groveland	783	6,264	8	288,585	1.05	3,030.14	649.32	6	173.15	2,856.99	23	657.11	77	2,373.03
Haines City	Haines City	813	210,567	259	8,473,230	1.07	90,663.56	19,064.58	7	5,931.26	84,732.30	23	19,488.43	77	71,175.13
Highland City	Bartow	803	34,529	43	1,395,360	1.06	14,790.82	3,139.56	6	837.22	13,953.60	23	3,209.33	77	11,581.49
Highland Park	Lake Wales	812	10,556	13	425,160	1.06	4,506.70	956.71	6	255.10	4,251.60	23	977.87	77	3,528.83
Homeland	Bartow	815	815	1	32,400	1.06	343.44	72.90	6	19.44	324.00	23	74.52	77	268.92
Interlachen	Interlachen	699	699	1	32,400	.98	317.52	72.90	5	16.20	301.32	24	73.39	76	245.93

Forest City	Winter Garden	769	71,517	93	3,078,705	1.04	31,987.83	6,919.87	6	1,845.42	30,141.91	23	6,932.64	77	25,054.69
Ft. Meade	Ft. Meade	819	42,588	52	1,720,980	1.07	18,414.49	3,872.27	7	1,204.69	17,209.80	23	3,958.25	77	14,456.24
[fol. 2633]															Page 6
Ft. Myers	Ft. Myers	896	92,288	103	3,479,760	1.11	38,625.34	7,829.29	7	2,435.83	36,189.51	22	7,961.69	78	30,663.65
Ft. Ogden	Ft. Ogden	865	3,460	4	131,805	1.10	1,449.86	296.57	7	92.26	1,357.60	22	298.67	78	1,151.19
Frostproof	Avon Park	823	138,264	168	5,516,145	1.08	59,574.37	12,411.11	6	3,309.69	56,264.68	23	12,940.88	77	46,633.49
Fullers	Winter Garden	779	5,453	7	233,280	1.04	2,426.11	524.88	6	139.97	2,286.14	23	525.81	77	1,900.30
Gillette	Palmetto	846	16,074	19	630,720	1.08	6,811.78	1,419.07	6	378.43	6,433.35	22	1,415.34	78	5,396.44
Groveland	Groveland	783	6,264	8	288,585	1.05	3,030.14	649.32	6	173.15	2,856.99	23	657.11	77	2,373.03
Haines City	Haines City	813	210,567	259	8,473,230	1.07	90,663.56	19,064.58	7	5,931.26	84,732.30	23	19,488.43	77	71,175.13
Highland City	Bartow	803	34,529	43	1,395,360	1.06	14,790.82	3,139.56	6	837.22	13,953.60	23	3,209.33	77	11,581.49
Highland Park	Lake Wales	812	10,556	13	425,160	1.06	4,506.70	956.71	6	255.10	4,251.60	23	977.87	77	3,528.83
Homeland	Bartow	815	815	1	32,400	1.06	343.44	72.90	6	19.44	324.00	23	74.52	77	268.92
Interlachen	Interlachen	699	699	1	32,400	.98	317.52	72.90	5	16.20	301.32	24	72.32	76	245.20
Isleworth	Ocoee	787	68,469	87	2,868,901	1.04	29,836.57	6,455.05	6	1,721.34	28,115.23	23	6,466.50	77	23,370.07
Kissimee	Kissimee	792	30,888	39	1,296,675	1.05	13,615.09	2,917.51	6	778.01	12,837.08	23	2,952.53	77	10,662.56
Lady Lake	Leesburg	732	732	1	32,400	1.00	324.00	72.90	4	12.96	311.04	24	74.65	76	249.35
Lake Alfred	Haines City	794	63,520	80	2,637,720	1.07	28,223.60	5,934.70	7	1,846.40	26,377.20	23	6,066.76	77	22,156.84
Lake Como	Crescent City	698	45,370	65	2,136,510	.99	21,151.45	4,807.10	5	1,068.26	20,083.19	24	4,819.97	76	16,331.48
Lake Hamilton	Haines City	819	36,855	45	1,488,870	1.07	15,930.91	3,350.04	7	1,042.21	14,888.70	23	3,424.40	77	12,506.51
Lakeland	Lakeland	795	20,670	26	869,580	1.05	9,130.59	1,956.61	6	521.75	8,608.84	23	1,980.03	77	7,150.56
Lake Wales	Lake Wales	810	29,160	36	1,257,760	1.06	13,332.26	2,829.89	6	754.66	12,577.60	23	2,892.85	77	10,439.41
Largo	St. Petersburg	822	5,754	7	227,880	1.08	2,461.10	1,188.51	6	136.73	2,324.37	23	534.61	77	1,926.49
Leesburg	Leesburg	740	28,120	38	1,295,865	1.00	12,958.65	2,915.70	4	518.35	12,440.30	24	2,985.67	76	9,972.98
Lisbon	Umatilla	749	32,956	44	1,457,685	1.02	14,868.39	3,279.82	5	728.84	14,139.55	24	3,393.49	76	11,474.90
Lowell	Ocala	700	39,900	57	1,897,920	.99	18,789.41	4,270.25	5	948.96	17,840.45	24	4,281.71	76	14,507.70
Lucerne Park	Winter Haven	803	16,060	20	660,645	1.05	6,936.77	1,486.35	6	396.39	6,540.38	23	1,504.29	77	5,432.48
Lynchburg	Haines City	793	22,204	28	925,560	1.07	9,903.49	2,082.53	7	647.89	9,255.60	23	2,128.79	77	7,774.70
Maitland	Winter Park	767	33,748	44	1,429,290	1.04	14,864.62	3,218.50	6	857.57	14,007.05	23	3,221.62	77	11,643.00
Mascotte	Groveland	780	11,700	15	511,560	1.05	5,371.38	1,151.03	6	306.94	5,064.44	23	1,164.82	77	4,206.56
Mt. Dora	Tavares	756	199,584	264	8,593,785	1.02	87,656.61	19,337.95	5	4,296.89	83,359.72	24	20,006.33	76	67,650.28
Nocatee	Nocatee	858	6,864	8	292,680	1.10	3,219.48	658.53	7	204.88	3,014.60	22	663.21	78	2,556.27
Ocala	Ocala	706	76,248	108	3,586,860	.99	35,509.91	8,070.35	5	1,793.43	33,716.48	24	8,091.96	76	27,417.95
Ocoee	Ocoee	780	9,360	12	393,120	1.04	4,088.45	884.53	6	235.87	3,852.58	23	886.09	77	3,202.36
Okahumpka	Center Hill	745	12,665	17	594,225	1.02	6,061.10	1,337.00	5	297.11	5,763.99	24	1,383.36	76	4,677.74
Orlando	Orlando	774	128,484	166	5,524,245	1.04	57,452.15	12,429.39	6	3,314.55	54,137.60	23	12,451.65	77	45,000.50
Palmetto	Palmetto	841	15,138	18	606,870	1.08	6,554.20	1,365.41	6	364.12	6,190.08	22	1,361.82	78	5,192.38
Palm Harbor	Clearwater	811	82,722	102	3,437,640	1.07	36,782.75	7,732.26	7	2,406.35	34,376.40	23	7,906.57	77	28,876.18
Paola	Sanford	758	758	1	32,400	1.02	330.48	72.90	5	16.20	314.28	24	75.43	76	255.05
Phillips (Ascot)	Citra	696	2,784	4	133,920	.97	1,299.02	301.32	4	53.57	1,245.45	24	298.91	76	1,000.11
Pierson	Deland	716	22,196	31	1,044,000	1.00	10,440.00	2,349.00	4	417.60	10,022.40	24	2,405.38	76	8,034.62
Pinellas Park	St. Petersburg	830	3,320	4	133,920	1.08	1,446.34	301.32	6	80.35	1,365.99	22	300.52	78	1,145.82
Pomona	Crescent City	696	5,568	8	267,390	.99	2,647.16	601.62	5	133.70	2,513.46	24	603.23	76	2,043.93
Sanford	Sanford	752	15,792	21	726,161	1.02	7,406.84	1,636.12	5	363.08	7,043.76	24	1,690.50	76	5,716.34
Sarasota	Sarasota	854	15,372	18	602,910	1.10	6,632.01	1,356.54	7	422.04	6,209.97	22	1,366.19	78	5,265.82
Seabring	Seabring	838	5,866	7	230,085	1.08	2,184.92	517.70	6	138.05	2,346.87	22	516.31	78	1,968.61
Seffner	Tampa	803	1,606	2	64,800	1.06	686.88	145.80	6	38.88	648.00	23	149.04	77	537.84
Seville	Crescent City	710	17,040	24	794,160	.99	7,862.18	1,786.86	5	397.08	7,465.10	24	1,791.62	76	6,070.56
Sorento	Tavares	762	14,478	19	623,250	1.02	6,357.15	1,402.96	6	373.95	5,983.20	23	1,376.14	77	4,981.01
Sparlin	Lakeland	798	9,576	12	393,165	1.05	4,128.23	884.63	6	235.90	3,892.33	23	895.24	77	3,232.99
Tampa	Tampa	810	26,730	33	1,086,210	1.06	11,513.83	2,443.97	6	651.73	10,862.10	23	2,498.28	77	9,015.55
Tarpon Spgs	Tarpon Spgs	806	806	1	32,400	1.06	343.44	72.92	6	19.44	324.00	23	74.52	77	268.92
Taru	Palmetto	844	32,916	39	1,317,600	1.08	14,230.08	2,964.58	6	790.56	13,439.52	22	2,956.69	78	11,273.39
Tavares	Tavares	751	26,285	35	1,184,355	1.02	12,080.42	2,665.04	5	592.18	11,488.24	24	2,757.18	76	9,323.24
Thomas Spur (Welles)	Ft. Ogden	861	861	1	32,400	1.10	356.40	72.90	7	22.68	333.72	22	73.42	78	282.98
Thonotosassa	Tampa	792	41,184	52	1,687,410	1.06	17,886.55	3,796.68	6	1,012.45	16,874.10	23	3,881.04	77	14,005.51
Umatilla	Umatilla	759	30,360	40	1,326,705	1.02	13,532.39	2,971.63	5	663.35	12,869.04	24	3,088.57	76	10,443.82
Wauchula	Wauchula	833	22,491	27	955,440	1.08	10,318.75	2,149.71	6	573.26	9,745.49	22	2,144.01	78	8,174.74
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Waverly	Lake Wales	805	37,835	47	1,555,920	1.06	16,492.75	3,500.86	6	933.55	15,559.20	23	3,578.62	77	12,914.13
Weirsdale	Leesburg	727	45,801	63	2,075,625	1.00	20,756.25	4,722.65	4	830.25	19,926.00	24	4,782.24	76	15,974.01
Winter Garden	Winter Garden	780	57,720	74	2,478,628	1.04	25,777.73	5,577.32	6	1,487.18	24,290.55	23	5,586.83	77	20,190.90
Winter Haven	Winter Haven	796	144,076	181	5,974,965	1.05	62,737.13	13,443.79	6	3,584.98	59,152.15	23	13,604.99	77	49,132.14
Winter Park	Winter Park	769	237,621	309	10,347,300	1.04	107,611.92	23,283.88	6	6,208.38	101,403.54	23	23,322.81	77	84,289.11
Yalaha	Center Hill	752	7,520	10	333,945	1.02	3,406.24	751.38	5	166.97	3,239.27	24	777.42	76	2,628.82
Zolfo Spgs	Wauchula	837	2,511	3	97,200	1.08	1,049.76	218.70	6	58.32	991.44	22	218.12	78	831.64
Total			3,805,132	4,849	161,490,530		$1,688,218.46	$364,367.41		$95,667.41	$1,592,551.05		$368,885.89		$1,319,332.57
Average Weighted Haul:															
Average per car			785		33,304		348.16	75.14		19.73			76.07		272.08
Average per 100 lbs. (cents)							1.045	22.6		5.9			22.8		81.7

EXHIBIT No. 2—Continued

Philadelphia, Pa. 253 Miles from Richmond, Va.

Atlantic Coast Line Origins B. & O. Delivery via Richmond, Va.

Origin	Basing Point	Southern Miles	Southern Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lbs. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. Decision North %	North Revenue	South %	South Revenue
Arcadia.....Fla.	Arcadia.....Fla.	855	855	1	33,480	$1.05	$351.54	$62.94	7	$23.44	$328.10	19	$62.34	81	$289.20
Auburndale.....	Auburndale.....	790	3,950	5	162,000	1.01	1,636.20	305.20	6	97.20	1,539.00	19	292.41	81	1,343.79
Avon Park.....	Avon Park.....	829	9,948	12	401,850	1.04	4,179.24	760.11	7	281.30	3,897.94	19	740.61	81	3,438.63
Babson Park.....	Lake Wales.....	816	4,896	6	199,530	1.02	2,035.21	376.41	6	119.72	1,915.49	19	363.94	81	1,671.27
Bartow.....	Bartow.....	809	5,663	7	231,120	1.02	2,357.42	435.86	6	138.67	2,218.75	19	421.56	81	1,935.86
Beresford.....	Orange City Jct.....	735	2,205	3	99,360	.96	953.86	188.13	5	49.68	904.18	20	180.84	80	773.02
Blanton.....	Lake Jovita.....	766	19,916	26	857,160	.99	8,485.88	1,628.60	5	428.58	8,057.30	20	1,611.46	80	6,874.42
Bowling Green....	Wauchula.....	827	827	1	33,480	1.04	348.19	63.61	7	23.44	324.75	19	61.70	81	286.49
Bradenton.....	Bradenton.....	842	1,684	2	65,520	1.04	681.41	124.49	7	45.86	635.55	19	120.75	81	560.66
Brooksville.....	Brooksville.....	762	6,858	9	305,460	.99	3,024.05	579.04	5	152.73	2,871.32	20	574.26	80	2,449.79
Citra.....	Citra.....	687	8,244	12	395,010	.93	3,673.59	749.86	4	158.00	3,515.59	21	738.27	79	2,935.32
Clearwater.....	Clearwater.....	819	4,095	5	162,035	1.02	1,662.96	309.77	6	97.82	1,565.14	19	297.38	81	1,365.58
Crescent City.....	Crescent City.....	703	18,278	26	737,145	.95	7,002.88	1,395.96	5	368.57	6,634.31	20	1,326.86	80	5,676.02
Davenport.....	Haines City.....	809	7,281	9	298,800	1.02	3,047.76	561.76	6	179.28	2,868.48	19	545.01	81	2,502.75
Deland.....	Deland.....	738	130,626	177	5,937,435	.96	56,999.38	11,245.64	5	2,968.72	54,030.66	20	10,806.13	80	46,193.25
Dundee.....	Haines City.....	819	12,285	15	502,110	1.02	5,121.52	945.37	6	301.27	4,820.25	19	915.85	81	4,205.67
Dunedin.....	Clearwater.....	816	816	1	33,480	1.02	341.50	62.95	6	20.09	321.41	19	61.07	81	280.43
Eagle Lake.....	Winter Haven.....	800	3,200	4	130,680	1.01	1,319.87	245.67	6	78.41	1,241.46	19	235.88	81	1,083.99
Eustis.....	Eustis.....	755	18,120	24	787,320	.98	7,715.74	1,489.99	6	472.39	7,243.35	20	1,448.67	80	6,267.07
Florence Villa.....	Winter Haven.....	798	8,778	11	372,960	1.01	3,766.90	714.10	6	223.78	3,543.12	19	673.19	81	3,093.71
Ft. Meade.....	Ft. Meade.....	819	3,276	4	137,160	1.02	1,399.03	259.91	6	82.30	1,316.73	19	250.18	81	1,148.85
Ft. Myers.....	Ft. Myers.....	896	4,480	5	165,240	1.07	1,768.07	313.31	7	115.67	1,652.40	18	297.43	82	1,470.64
Frostproof.....	Avon Park.....	823	27,159	33	1,103,220	1.04	11,473.49	2,076.67	7	772.25	10,701.24	19	2,033.24	81	9,440.25
Fullers.....	Winter Garden.....	779	7,790	10	331,560	.99	2,292.44	628.74	5	115.78	2,176.66	20	435.33	80	1,857.11
Groveland.....	Groveland.....	783	1,566	2	65,880	1.00	658.80	125.18	5	32.94	625.86	19	118.91	81	539.89
Haines City.....	Haines City.....	813	27,642	34	1,108,125	1.02	11,302.88	2,087.20	6	664.88	10,638.00	19	2,021.22	81	9,281.66
Highland City.....	Bartow.....	803	7,227	9	292,680	1.02	2,985.34	552.83	6	175.61	2,809.73	19	533.85	81	2,451.49
Highland Park....	Lake Wales.....	812	9,744	12	395,280	1.02	4,031.86	747.07	6	237.17	3,794.69	19	720.99	81	3,310.87
Homeland.....	Bartow.....	815	815	1	33,480	1.02	341.50	63.62	6	20.09	321.41	19	61.07	81	280.43
Isleworth.....	Ocoee.....	787	787	1	32,400	.99	320.76	61.56	5	16.20	304.56	19	57.87	81	262.89
Kissimee.....	Kissimee.....	792	38,016	48	1,605,510	1.01	16,215.65	3,038.58	6	963.31	15,252.34	19	2,897.94	81	13,317.71
Lady Lake.....	Leesburg.....	732	732	1	32,400	.96	311.04	60.91	5	16.20	294.84	20	58.97	80	252.07
Lake Alfred.....	Haines City.....	794	22,232	28	910,800	1.02	9,290.16	1,713.63	6	546.48	8,743.68	19	1,661.30	81	7,628.86
Lake Hamilton....	Haines City.....	819	14,742	18	594,000	1.02	6,058.80	1,117.41	6	356.40	5,702.40	19	1,083.46	81	4,975.34
Lakeland.....	Lakeland.....	795	70,755	89	2,965,500	1.01	29,951.55	5,615.33	6	1,799.30	28,152.25	19	5,348.93	81	24,602.62
Lake Wales.....	Lake Wales.....	810	2,430	3	103,680	1.02	1,057.54	195.57	6	62.21	995.33	19	189.11	81	868.43
Leesburg.....	Leesburg.....	740	5,920	8	263,880	.96	2,533.25	498.74	5	131.94	2,401.31	20	480.26	80	2,052.99
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Lisbon.....	Umatilla.....	749	3,745	5	163,440	.98	1,618.06	309.23	6	114.41	1,503.65	20	300.73	80	1,317.33
Lowell.....	Ocala.....	700	9,800	14	465,975	.95	4,426.76	884.02	5	232.99	4,193.77	21	880.69	79	3,546.07
Lucerne Park.....	Winter Haven.....	803	16,863	21	693,990	1.01	7,009.30	1,307.87	6	416.39	6,592.91	19	1,252.65	81	5,756.65
Lynchburg.....	Haines City.....	793	6,344	8	261,360	1.02	2,665.87	492.66	6	156.82	2,509.05	19	476.72	81	2,189.15
Maitland.....	Winter Park.....	767	13,806	18	592,011	.99	5,860.91	1,114.28	5	296.01	5,564.90	20	1,112.98	80	4,747.93
Ocala.....	Ocala.....	706	1,412	2	64,800	.95	615.60	122.47	5	32.40	583.20	20	116.64	80	498.96
Orlando.....	Orlando.....	774	38,700	50	1,666,665	.99	16,499.98	3,259.88	5	833.33	15,666.65	20	3,133.33	80	13,366.65
Oviedo.....	Oviedo.....	769	4,614	6	196,560	.99	1,945.94	373.46	5	98.28	1,847.66	20	369.53	80	1,576.41
Palmetto.....	Palmetto.....	841	4,205	5	166,320	1.04	1,729.73	315.33	7	116.42	1,613.31	19	306.53	81	1,423.20
Palm Harbor.....	Clearwater.....	811	32,440	40	1,326,510	1.02	13,530.40	2,512.90	6	795.91	12,734.49	19	2,419.55	81	11,110.85
Paolo.....	Sanford.....	758	758	1	33,480	.98	328.10	63.61	6	20.09	308.01	20	61.60	80	266.50
Pierson.....	Deland.....	716	5,012	7	234,180	.96	2,248.13	441.57	5	117.09	2,131.04	20	426.21	80	1,821.92
Pomona.....	Crescent City.....	696	4,872	7	232,200	.95	2,205.90	437.85	5	116.10	2,089.80	21	438.86	79	1,767.04
Sanford.....	Sanford.....	752	752	1	41,760	.98	409.25	78.51	6	25.06	384.19	20	76.84	80	332.41
Sebring.....	Sebring.....	838	5,866	7	232,650	1.04	2,107.56	438.69	7	141.86	1,965.70	19	373.48	81	1,734.08
Seville.....	Crescent City.....	710	118,570	167	5,598,675	.95	53,187.41	10,597.94	5	2,799.34	50,388.07	20	10,077.61	80	43,109.80
Sorrento.....	Tavares.....	762	9,906	13	423,360	.98	4,148.93	803.46	6	254.02	3,894.91	20	778.98	80	3,369.95
Sparlin.....	Lakeland.....	798	1,596	2	71,640	1.01	723.56	136.12	6	42.98	680.58	19	129.31	81	594.25
Tavares.....	Tavares.....	751	12,016	16	544,365	.98	5,334.78	1,032.94	6	326.62	5,008.16	20	1,001.63	80	4,333.15
Thonotosassa.....	Tampa.....	792	9,504	12	390,240	1.02	3,980.45	733.66	6	234.14	3,746.31	19	711.80	81	3,268.65
Umatilla.....	Umatilla.....	759	37,191	49	1,613,565	.98	15,812.94	3,061.76	6	968.14	14,844.80	20	2,968.96	80	12,843.98
[illegible]	[illegible]	822	4,165	5	165,240	1.04	1,718.50	310.64	7	115.67	1,602.83	19	304.54	81	1,413.96

Tavares	Tavares	751	12,016	16	544,365	.98	5,334.78	1,032.94	6	326.62	5,008.16	20	1,001.63	80	4,333.15
Thonotosassa	Tampa	792	9,504	12	390,240	1.02	3,980.45	733.66	6	234.14	3,746.31	19	711.80	81	3,268.65
Umatilla	Umatilla	759	37,191	49	1,613,565	.98	15,812.94	3,061.76	6	968.14	14,844.80	20	2,968.96	80	12,843.98
Wauchula	Wauchula	833	4,165	5	165,240	1.04	1,718.50	310.64	7	115.67	1,602.83	19	304.54	81	1,413.96
Waverly	Lake Wales	805	18,515	23	763,020	1.02	7,782.80	1,436.60	6	457.81	7,324.99	19	1,391.75	81	6,391.05
Weirsdale	Leesburg	727	10,905	15	495,360	.96	4,755.46	937.17	5	247.68	4,507.78	20	901.56	80	3,853.90
Winter Haven	Winter Haven	796	4,776	6	195,480	1.01	1,974.35	368.15	6	117.29	1,857.06	19	352.84	81	1,621.51
Winter Park	Winter Park	769	43,064	56	1,859,085	.99	18,404.94	3,498.20	5	929.54	17,475.40	20	3,495.08	80	14,909.86
Zolfo Springs	Wauchula	837	6,696	8	268,920	1.04	2,796.77	509.62	7	188.24	2,608.53	19	495.62	81	2,301.15
Total			939,931	1,226	40,648,581		$400,519.64	$76,980.31		$22,532.31	$377,987.33		$74,084.26		$326,435.38
Average Weighted Haul:															
Average per car			767		33,155		326.69	62.79		18.38			60.43		266.26
Average per 100 lbs. (cents)							98.5	18.9		5.5			18.2		80.3

Philadelphia, Pa., 253 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Arcadia Fla.	Arcadia Fla.	855	28,215	33	1,195,380	$1.05	$12,551.49	$2,260.80	7	$836.77	$11,714.72	19	$2,225.80	81	$10,325.69
Auburndale	Auburndale	790	17,380	22	759,240	1.01	7,668.32	1,442.43	6	455.54	7,212.78	19	1,370.43	81	6,297.89
Avon Park	Avon Park	829	829	1	33,480	1.04	348.19	63.61	7	23.44	324.75	19	61.70	81	286.49
Babson Park	Lake Wales	816	4,080	5	166,680	1.02	1,700.14	315.89	6	100.01	1,600.13	19	304.02	81	1,396.12
Bartow	Bartow	809	11,326	14	466,560	1.02	4,758.91	886.49	6	279.94	4,478.97	19	851.00	81	3,907.91
Beresford	Orange City Jct	735	1,470	2	64,800	.96	622.08	239.76	5	32.40	589.68	20	117.94	80	504.14
Brooksville	Brooksville	762	23,622	31	1,021,770	.99	10,115.52	2,063.85	5	510.89	9,604.63	20	1,920.93	80	8,194.59
Citra	Citra	687	24,732	36	1,197,585	.93	11,137.54	2,275.81	4	479.03	10,658.51	21	2,238.29	79	8,899.25
Clearwater	Clearwater	819	13,923	17	551,880	1.02	5,629.18	1,048.58	6	331.13	5,298.05	19	1,006.63	81	4,622.55
Clermont	Clermont	778	6,224	8	278,280	1.00	2,782.80	520.50	5	139.14	2,643.66	20	528.73	80	2,254.07
Crescent City	Crescent City	703	12,654	18	600,480	.95	5,704.56	1,202.60	5	300.24	5,404.32	20	1,080.81	80	4,623.75
Dade City	Dade City	768	6,144	8	265,680	.99	2,630.23	504.79	5	132.84	2,497.39	20	499.48	80	2,130.75
Davenport	Haines City	809	17,798	22	723,600	1.02	7,380.72	1,374.88	6	434.16	6,946.56	19	1,319.85	81	6,060.87
Deland	Deland	738	5,904	8	271,080	.96	2,602.37	515.05	5	135.54	2,466.83	20	493.37	80	2,109.00
Dr. Phillips	Ocoee	790	2,370	3	103,680	.99	1,026.43	197.01	5	51.84	974.59	19	185.17	81	841.26
Dundee	Haines City	819	13,104	16	539,145	1.02	5,499.28	1,024.39	6	323.49	5,175.79	19	983.40	81	4,515.88
Dunedin	Clearwater	816	6,528	8	261,360	1.02	2,665.87	496.61	6	156.82	2,509.05	19	476.72	81	2,189.15

Eagle Lake	Winter Haven	800	3,200	4	132,840	1.01	1,341.68	371.14	6	79.70	1,261.98	19	239.78	81	1,101.90
Eustis	Eustis	755	25,670	34	1,132,425	.98	11,097.77	2,151.53	6	679.46	10,418.31	20	2,083.66	80	9,014.11
Florence Villa	Winter Haven	798	7,182	9	301,320	1.01	3,043.33	572.52	6	180.79	2,862.54	19	543.88	81	2,499.45
Forest City	Winter Garden	769	36,912	48	1,586,475	.99	15,706.10	3,014.33	5	793.24	14,912.86	20	2,982.57	80	12,723.53
Ft. Myers	Ft. Myers	896	5,572	7	237,690	1.07	2,543.28	451.64	7	166.38	2,376.90	18	427.84	82	2,115.44
Ft. Ogden	Ft. Ogden	865	1,730	2	65,880	1.05	691.74	125.77	7	46.12	645.62	19	122.67	81	569.07
Frostproof	Avon Park	823	33,743	41	1,374,570	1.04	14,295.53	2,637.70	7	962.20	13,333.33	19	2,533.33	81	11,762.20
Fruitland Park	Leesburg	737	737	1	39,960	.96	383.62	75.93	5	19.98	363.64	20	72.73	80	310.89
Fullers	Winter Garden	779	3,895	5	165,240	.99	1,635.88	313.96	5	82.62	1,553.26	20	310.65	80	1,325.23
Gilette	Palmetto	846	846	1	33,480	1.04	348.19	63.62	7	23.44	324.75	19	61.70	81	286.49
Glenwood	Deland	729	7,290	10	332,595	.96	3,192.91	631.93	5	166.30	3,026.61	20	605.32	80	2,587.59
Groveland	Groveland	783	783	1	32,400	1.00	324.00	61.56	5	16.20	307.80	19	58.48	81	265.52
Haines City	Haines City	813	48,780	60	1,962,360	1.02	20,016.07	3,803.08	6	1,177.42	18,838.65	19	3,579.34	81	16,436.73
Highland City	Bartow	803	14,454	18	584,280	1.02	5,959.66	1,168.46	6	350.57	5,609.09	19	1,065.73	81	4,893.93
Highland Park	Lake Wales	812	3,248	4	131,760	1.02	1,343.95	250.36	6	79.06	1,264.89	19	240.33	81	1,103.62
Kissimee	Kissimee	792	792	1	33,480	1.01	338.15	63.61	6	20.09	318.06	19	60.43	81	277.72
Lady Lake	Leesburg	732	1,464	2	65,880	.96	632.45	125.17	5	32.94	599.51	20	119.90	80	512.55
Lake Alfred	Haines City	794	10,322	13	422,640	1.02	4,310.93	803.01	6	253.58	4,057.35	19	770.90	81	3,540.03
Lake Hamilton	Haines City	819	5,733	7	236,520	1.02	2,412.50	449.41	6	141.91	2,270.59	19	431.41	81	1,981.09
Lakeland	Lakeland	795	33,390	42	1,382,850	1.01	13,366.79	2,627.43	6	829.71	12,537.08	19	2,382.05	81	10,984.74
Lake Wales	Lake Wales	810	3,240	4	130,680	1.02	1,332.94	248.30	6	78.41	1,254.55	19	238.36	81	1,094.58
Leesburg	Leesburg	740	49,580	67	2,284,065	.96	21,927.02	4,339.73	5	1,142.03	20,784.99	20	4,157.00	80	17,770.02
Lisbon	Umatilla	749	5,243	7	231,120	.98	2,264.98	439.11	6	138.67	2,126.31	20	425.24	80	1,839.74
Lucerne Park	Winter Haven	803	3,212	4	132,840	1.01	1,341.68	312.65	6	79.70	1,261.98	19	239.78	81	1,101.90
Lynchburg	Haines City	793	3,172	4	132,840	1.02	1,354.97	252.41	6	79.70	1,275.27	19	242.30	81	1,112.67
Maitland	Winter Park	767	11,505	15	495,720	.99	4,907.63	941.86	5	247.86	4,659.77	20	931.95	80	3,975.68
Mascot	Groveland	780	34,320	44	1,551,780	1.00	15,517.80	2,948.38	5	775.89	14,741.91	20	2,948.38	80	12,569.42
Mt. Dora	Tavares	756	5,292	7	226,800	.98	2,222.64	430.92	6	136.08	2,086.56	20	417.31	80	1,805.33
Mountain Lake	Lake Wales	806	806	1	33,480	1.02	341.50	63.62	6	20.09	321.41	19	61.07	81	280.43
Ocala	Ocala	706	706	1	33,480	.95	318.06	123.88	5	16.74	301.32	20	60.26	80	257.80
Orlando	Orlando	774	130,806	169	5,681,115	.99	56,243.04	10,794.16	5	2,840.56	53,402.48	20	10,680.50	80	45,562.54
Oviedo	Oviedo	769	2,307	3	98,280	.99	972.97	186.73	5	49.14	923.83	20	184.77	80	788.20
Palmetto	Palmetto	841	11,774	14	471,870	1.04	4,907.45	896.53	7	330.31	4,577.14	19	869.66	81	4,037.79
Palm Harbor	Clearwater	811	27,574	34	1,136,835	1.02	11,595.72	2,276.67	6	682.10	10,913.62	19	2,073.59	81	9,522.13
Paolo	Sanford	758	4,548	6	196,065	.98	1,921.44	372.52	6	117.64	1,803.80	20	360.76	80	1,560.68
Phillips (Ascot)	Citra	696	1,392	2	66,960	.93	622.73	127.22	4	26.78	595.95	21	125.15	79	497.58
Pierson	Deland	716	2,864	4	132,975	.96	1,276.56	252.35	5	66.49	1,210.07	20	242.01	80	1,034.55
Pomona	Crescent City	696	7,656	11	359,100	.95	3,411.45	682.29	5	179.66	3,231.90	21	678.70	79	2,732.78

Citra	Citra	687	24,732	36	1,197,585	.93	11,137.54	2,275.81	4	479.03	10,658.51	21	2,238.29	79	8,899.25
Clearwater	Clearwater	819	13,923	17	551,880	1.02	5,629.18	1,048.58	6	331.13	5,298.05	19	1,006.63	81	4,622.55
Clermont	Clermont	778	6,224	8	278,280	1.00	2,782.80	520.50	5	139.14	2,643.66	20	528.73	80	2,254.07
Crescent City	Crescent City	703	12,654	18	600,480	.95	5,704.56	1,202.60	5	300.24	5,404.32	20	1,080.81	80	4,623.75
Dade City	Dade City	768	6,144	8	265,680	.99	2,630.23	504.79	5	132.84	2,497.39	20	499.48	80	2,130.75
Davenport	Haines City	809	17,798	22	723,600	1.02	7,380.72	1,374.88	6	434.16	6,946.56	19	1,319.85	81	6,060.87
Deland	Deland	738	5,904	8	271,080	.96	2,602.37	515.05	5	135.54	2,466.83	20	493.37	80	2,109.00
Dr. Phillips	Ocoee	790	2,370	3	103,680	.99	1,026.43	197.01	5	51.84	974.59	19	185.17	81	841.26
Dundee	Haines City	819	13,104	16	539,145	1.02	5,499.28	1,024.39	6	323.49	5,175.79	19	983.40	81	4,515.88
Dunedin	Clearwater	816	6,528	8	261,360	1.02	2,665.87	496.61	6	156.82	2,509.05	19	476.72	81	2,189.15
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Eagle Lake	Winter Haven	800	3,200	4	132,840	1.01	1,341.68	371.14	6	79.70	1,261.98	19	239.78	81	1,101.90
Eustis	Eustis	755	25,670	34	1,132,425	.98	11,097.77	2,151.53	6	679.46	10,418.31	20	2,083.66	80	9,014.11
Florence Villa	Winter Haven	798	7,182	9	301,320	1.01	3,043.33	572.52	6	180.79	2,862.54	19	543.88	81	2,499.45
Forest City	Winter Garden	769	36,912	48	1,586,475	.99	15,706.10	3,014.33	5	793.24	14,912.86	20	2,982.57	80	12,723.53
Ft. Myers	Ft. Myers	896	5,572	7	237,690	1.07	2,543.28	451.64	7	166.38	2,376.90	18	427.84	82	2,115.44
Ft. Ogden	Ft. Ogden	865	1,730	2	65,880	1.05	691.74	125.77	7	46.12	645.62	19	122.67	81	569.07
Frostproof	Avon Park	823	33,743	41	1,374,570	1.04	14,295.53	2,637.70	7	962.20	13,333.33	19	2,533.33	81	11,762.20
Fruitland Park	Leesburg	737	737	1	39,960	.96	383.62	75.93	5	19.98	363.64	20	72.73	80	310.89
Fullers	Winter Garden	779	3,895	5	165,240	.99	1,635.88	313.96	5	82.62	1,553.26	20	310.65	80	1,325.23
Gilette	Palmetto	846	846	1	33,480	1.04	348.19	63.62	7	23.44	324.75	19	61.70	81	286.49
Glenwood	Deland	729	7,290	10	332,595	.96	3,192.91	631.93	5	166.30	3,026.61	20	605.32	80	2,587.59
Groveland	Groveland	783	783	1	32,400	1.00	324.00	61.56	5	16.20	307.80	19	58.48	81	265.52
Haines City	Haines City	813	48,780	60	1,962,360	1.02	20,016.07	3,803.08	6	1,177.42	18,838.65	19	3,579.34	81	16,436.73
Highland City	Bartow	803	14,454	18	584,280	1.02	5,959.66	1,168.46	6	350.57	5,609.09	19	1,065.73	81	4,893.93
Highland Park	Lake Wales	812	3,248	4	131,760	1.02	1,343.95	250.36	6	79.06	1,264.89	19	240.33	81	1,103.62
Kissimee	Kissimee	792	792	1	33,480	1.01	338.15	63.61	6	20.09	318.06	19	60.43	81	277.72
Lady Lake	Leesburg	732	1,464	2	65,880	.96	632.45	125.17	5	32.94	599.51	20	119.90	80	512.55
Lake Alfred	Haines City	794	10,322	13	422,640	1.02	4,310.93	803.01	6	253.58	4,057.35	19	770.90	81	3,540.03
Lake Hamilton	Haines City	819	5,733	7	236,520	1.02	2,412.50	449.41	6	141.91	2,270.59	19	431.41	81	1,981.09
Lakeland	Lakeland	795	33,390	42	1,382,850	1.01	13,366.79	2,627.43	6	829.71	12,537.08	19	2,382.05	81	10,984.74
Lake Wales	Lake Wales	810	3,240	4	130,680	1.02	1,332.94	248.30	6	78.41	1,254.55	19	238.36	81	1,094.58
Leesburg	Leesburg	740	49,580	67	2,284,065	.96	21,927.02	4,339.73	5	1,142.03	20,784.99	20	4,157.00	80	17,770.02
Lisbon	Umatilla	749	5,243	7	231,120	.98	2,264.98	439.11	6	138.67	2,126.31	20	425.24	80	1,839.74
Lucerne Park	Winter Haven	803	3,212	4	132,840	1.01	1,341.68	312.65	6	79.70	1,261.98	19	239.78	81	1,101.90
Lynchburg	Haines City	793	3,172	4	132,840	1.02	1,354.97	252.41	6	79.70	1,275.27	19	242.30	81	1,112.67
Maitland	Winter Park	767	11,505	15	495,720	.99	4,907.63	941.86	5	247.86	4,659.77	20	931.95	80	3,975.68
Mascot	Groveland	780	34,320	44	1,551,780	1.00	15,517.80	2,948.38	5	775.89	14,741.91	20	2,948.38	80	12,569.42
Mt. Dora	Tavares	756	5,292	7	226,800	.98	2,222.64	430.92	6	136.08	2,086.56	20	417.31	80	1,805.33
Mountain Lake	Lake Wales	806	806	1	33,480	1.02	341.50	63.62	6	20.09	321.41	19	61.07	81	280.43
Ocala	Ocala	706	706	1	33,480	.95	318.06	123.88	5	16.74	301.32	20	60.26	80	257.80
Orlando	Orlando	774	130,806	169	5,681,115	.99	56,243.04	10,794.16	5	2,840.56	53,402.48	20	10,680.50	80	45,562.54
Oviedo	Oviedo	769	2,307	3	98,280	.99	972.97	186.73	5	49.14	923.83	20	184.77	80	788.20
Palmetto	Palmetto	841	11,774	14	471,870	1.04	4,907.45	896.53	7	330.31	4,577.14	19	869.66	81	4,037.79
Palm Harbor	Clearwater	811	27,574	34	1,136,835	1.02	11,595.72	2,276.67	6	682.10	10,913.62	19	2,073.59	81	9,522.13
Paolo	Sanford	758	4,548	6	196,065	.98	1,921.44	372.52	6	117.64	1,803.80	20	360.76	80	1,560.68
Phillips (Ascot)	Citra	696	1,392	2	66,960	.93	622.73	127.22	4	26.78	595.95	21	125.15	79	497.58
Pierson	Deland	716	2,864	4	132,975	.96	1,276.56	252.37	5	66.49	1,210.07	20	242.01	80	1,034.55
Pomona	Crescent City	696	7,656	11	359,100	.95	3,411.45	682.29	5	179.55	3,231.90	21	678.70	79	2,732.75
Sanford	Sanford	752	752	1	33,480	.98	328.10	172.49	6	20.09	308.01	20	61.60	80	266.50
Seffner	Tampa	803	3,212	4	129,600	1.02	1,321.92	246.24	6	77.76	1,244.16	19	236.39	81	1,085.53
Seville	Crescent City	710	22,010	31	1,019,340	.95	9,683.73	2,001.90	5	509.67	9,174.06	20	1,834.81	80	7,848.92
Sorrento	Tavares	762	4,572	6	199,800	.98	1,958.04	379.61	6	119.88	1,838.16	20	367.63	80	1,590.41
Tampa	Tampa	810	13,770	17	554,040	1.02	5,651.21	1,052.67	6	332.42	5,318.79	19	1,010.57	81	4,640.64
Taru	Palmetto	844	2,532	3	100,440	1.04	1,044.58	190.80	7	70.31	974.27	19	185.11	81	859.47
Tavares	Tavares	751	27,787	37	1,234,440	.98	12,097.51	2,343.46	6	740.66	11,356.85	20	2,271.37	80	9,826.14
Thonotosassa	Tampa	792	6,336	8	262,620	1.02	2,678.72	498.99	6	157.57	2,521.15	19	479.02	81	2,199.70
Umatilla	Umatilla	759	17,457	23	754,920	.98	7,398.22	1,434.34	6	452.95	6,945.27	20	1,389.05	80	6,009.17
Wauchula	Wauchula	833	14,994	18	592,965	1.04	6,166.84	1,314.89	7	415.08	5,751.76	19	1,092.83	81	5,074.01
Waverly	Lake Wales	805	6,440	8	260,280	1.02	2,654.86	494.54	6	156.17	2,498.69	19	474.75	81	2,180.11
Weirsdale	Leesburg	727	6,543	9	295,920	.96	2,840.83	586.54	5	147.96	2,692.87	20	538.57	80	2,302.26
Winter Garden	Winter Garden	780	20,280	26	853,380	.99	8,448.46	1,621.42	5	426.69	8,021.77	20	1,604.35	80	6,844.11
Winter Haven	Winter Haven	796	15,920	20	666,090	1.01	6,727.51	1,265.57	6	399.65	6,327.86	19	1,202.29	81	5,525.22
Winter Park	Winter Park	769	53,830	70	2,353,770	.99	23,302.32	4,472.09	5	1,176.89	22,125.43	20	4,425.09	80	18,877.23
Total			964,478	1,240	41,462,415		$412,591.59	$79,960.09		$23,036.42	$389,555.17		$76,467.19		$336,124.40
Average Weighted Haul:															
Average per car			778		33,437		332.74	64.48		18.58			61.67		271.07
Average per 100 lbs. (cents)							99.5	19.3		5.6			18.4		81.1

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EXHIBIT No. 2—Continued

Pittsburgh, Pa., 416 Miles from Richmond, Va.

Atlantic Coast Line Origins B. & O. Delivery via Richmond, Va.

Origin	Basing Point	Southern Miles	Southern Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lb. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. Decision North %	North Revenue	South %	South Revenue
Orlando..... Fla.	Orlando..... Fla.	774	774	1	33,120	$1.06	$ 351.07	$122.54	6	$19.87	$331.20	26	$86.11	74	$264.96
Average Weighted Haul:															
Average per car.....															
Average per 100 lbs. (cents).....								37.0		0.6			26.0		80.0

Pittsburgh, Pa., 416 Miles from Richmond, Va.

Atlantic Coast Line Origins P. R. R. Delivery via Richmond, Va.

Apopka..... Fla.	Apopka..... Fla.	769	769	1	32,400	$1.05	$340.20	$119.88	6	$19.44	$320.76	26	$83.40	74	$256.80
Arcadia.....	Arcadia.....	855	1,710	2	66,960	1.11	743.26	247.76	7	46.87	696.39	25	174.10	75	569.16
Auburndale.....	Auburndale.....	790	11,850	15	492,480	1.06	5,220.29	1,822.20	6	295.49	4,924.80	26	1,280.45	74	3,939.84
Avon Park.....	Avon Park.....	829	2,487	3	107,910	1.09	1,176.22	399.26	6	64.75	1,111.47	25	277.87	75	898.35
Babson Park.....	Lake Wales.....	816	4,080	5	163,080	1.08	1,761.26	603.39	6	97.85	1,663.41	25	415.85	75	1,345.41
Bartow.....	Bartow.....	809	5,663	7	230,040	1.08	2,484.43	851.13	6	138.02	2,346.41	25	586.60	75	1,897.83
Bersford.....	Orange City Jct.....	735	2,205	3	97,200	1.03	1,001.16	359.64	5	48.60	952.56	27	257.19	73	743.97
Blanton.....	Lake Jovita.....	766	8,426	11	365,940	1.06	3,878.96	1,353.98	6	219.56	3,659.40	26	951.44	74	2,927.52
Bowling Green....	Wauchula.....	827	1,654	2	65,385	1.10	719.24	241.93	6	39.23	680.01	25	170.00	75	549.24
Brookville.....	Brookville.....	762	11,430	15	491,085	1.04	5,107.28	1,817.01	5	245.54	4,861.74	26	1,264.05	74	3,843.23
Brownville.....	Arcadia.....	851	3,404	4	130,680	1.11	1,450.55	483.52	7	91.48	1,359.07	25	339.77	75	1,110.78
Citra.....	Citra.....	687	687	1	32,400	.98	317.52	119.88	4	12.96	304.56	27	82.23	73	235.29
Clearwater.....	Clearwater.....	819	7,371	9	295,920	1.09	3,225.53	1,094.89	6	177.55	3,047.98	25	762.00	75	2,463.53
Clermont.....	Clermont.....	778	4,628	6	196,560	1.06	2,083.54	727.28	6	117.94	1,965.60	26	511.06	74	1,572.48
Crescent City....	Crescent City.....	703	13,357	19	631,980	1.00	6,319.80	2,338.34	4	252.79	6,067.01	27	1,638.09	73	4,681.71
Dade City.....	Dade City.....	768	1,536	2	76,833	1.05	806.75	284.08	6	46.10	760.65	26	197.77	74	608.98
Davenport.....	Haines City.....	809	9,770	12	398,520	1.09	4,343.87	1,474.51	6	239.11	4,104.76	25	1,026.19	75	3,317.68
Deland.....	Deland.....	738	10,332	14	464,040	1.03	4,779.61	1,716.93	5	232.02	4,547.59	27	1,227.85	73	3,551.76
Dr. Phillips.....	Ocoee.....	790	8,690	11	366,120	1.06	3,880.87	1,354.63	6	219.67	3,661.20	26	951.92	74	2,928.95
Dundee.....	Haines City.....	819	13,104	16	523,800	1.09	5,709.42	1,938.04	6	314.28	5,395.14	25	1,348.79	75	4,360.63
Eagle Lake.....	Winter Haven.....	800	2,400	3	98,280	1.08	1,061.42	363.63	6	58.97	1,002.45	26	260.64	74	800.78
Eustis.....	Eustis.....	755	19,630	26	870,885	1.04	9,057.20	3,226.48	5	435.44	8,621.76	26	2,241.66	74	6,815.54
Florence Villa.....	Winter Haven.....	798	7,980	10	330,480	1.08	3,569.18	1,222.76	6	198.29	3,370.89	26	876.43	74	2,692.75
Forest City.....	Winter Garden.....	769	17,687	23	761,940	1.06	8,076.56	2,819.20	6	457.16	7,619.40	26	1,981.04	74	6,095.52
Ft. Meade.....	Ft. Meade.....	819	14,742	18	613,170	1.09	6,683.55	2,268.72	6	367.90	6,315.65	25	1,578.91	75	5,104.64
Ft. Myers.....	Ft. Myers.....	896	1,792	2	65,610	1.14	747.95	242.76	8	52.49	695.46	25	173.87	75	574.08
Ft. Ogden.....	Ft. Ogden.....	865	5,190	6	198,945	1.12	2,228.18	722.41	7	139.26	2,088.92	25	522.23	75	1,705.95
Frostproof.....	Avon Park.....	823	29,628	36	1,187,460	1.09	12,943.31	4,397.47	6	712.48	12,230.83	25	3,057.71	75	9,885.60
Fullers.....	Winter Garden.....	779	5,453	7	231,390	1.06	2,452.73	856.15	6	138.83	2,313.90	26	601.61	74	1,851.12
Groveland.....	Groveland.....	783	783	1	32,400	1.06	343.44	119.88	6	19.44	324.00	26	84.24	74	259.20
Haines City.....	Haines City.....	813	47,967	59	1,929,690	1.09	21,033.62	7,139.84	6	1,157.81	19,875.81	25	4,968.95	75	16,064.67
Highland City....	Bartow.....	803	8,030	10	324,000	1.08	3,499.20	1,202.04	6	194.40	3,304.80	25	826.20	75	2,673.00
Highland Park....	Lake Wales.....	812	7,308	9	295,920	1.08	3,195.94	1,094.88	6	177.55	3,018.39	25	754.60	75	2,441.34
Homeland.....	Bartow.....	815	1,630	2	70,830	1.08	764.96	262.06	6	42.50	722.46	25	180.62	75	584.34
Interlachen.....	Interlachen.....	699	699	1	32,400	1.00	324.00	119.88	4	12.96	311.04	27	83.98	73	240.02
Kissimee.....	Kissimee.....	792	3,168	4	132,840	1.08	1,434.67	491.50	6	79.70	1,354.97	26	352.29	74	1,082.38
Lady Lake.....	Leesburg.....	732	732	1	32,400	1.03	333.72	119.88	5	16.20	317.52	27	85.73	73	247.99
Lake Alfred.....	Haines City.....	794	3,176	4	130,680	1.09	1,424.41	483.51	6	78.41	1,346.00	26	349.96	74	1,074.45
Lake Como.....	Crescent City.....	698	2,094	3	97,245	1.00	972.45	359.81	4	38.90	933.55	27	252.06	73	720.39
Lake Hamilton....	Haines City.....	819	7,371	9	293,760	1.09	3,201.98	1,086.91	6	176.26	3,025.72	25	756.43	75	2,445.55
Lakeland.....	Lakeland.....	795	9,540	12	405,000	1.08	4,374.00	1,498.48	6	243.00	4,131.00	26	1,074.06	74	3,299.94
Lake Wales.....	Lake Wales.....	810	4,860	6	194,400	1.08	2,099.52	719.28	6	116.64	1,982.88	25	495.72	75	1,603.80
Largo.....	St. Petersburg.....	822	3,288	4	129,600	1.10	1,425.60	479.52	6	77.76	1,347.84	25	336.96	75	1,088.64
Leesburg.....	Leesburg.....	740	2,220	3	97,200	1.03	1,001.16	359.64	5	48.60	952.56	27	257.19	73	743.97
Lisbon.....	Umatilla.....	749	2,996	4	133,695	1.04	1,390.43	494.67	5	66.85	1,323.58	26	344.13	74	1,046.30
Lowell.....	Ocala.....	700	7,000	10	327,285	1.00	3,272.85	1,210.96	4	130.91	3,141.94	27	848.32	73	2,424.53
Lucerne Park.....	Winter Haven.....	803	14,454	18	596,160	1.08	6,438.53	2,205.77	6	357.70	6,080.83	25	1,520.21	75	4,918.32
Lynchburg.....	Haines City.....	793	11,102	14	459,000	1.09	5,003.10	1,698.28	6	275.40	4,727.70	26	1,229.20	74	3,773.90

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Maitland.....	Winter Park.....	767	6,136	8	260,325	1.05	2,733.41	963.20	6	156.20	2,577.21	26	670.07	74	2,063.34
Mascotte.....	Groveland.....	780	7,800	10	372,240	1.06	3,945.74	1,377.43	6	223.34	3,722.40	26	967.82	74	2,977.92

Lynchburg	Haines City	793	11,102	14	459,000	1.09	5,003.10	1,698.28	6	275.40	4,727.70	26	1,229.20	74	3,773.90
[fol. 2638]															Page 11
Maitland	Winter Park	767	6,136	8	260,325	1.05	2,733.41	963.20	6	156.20	2,577.21	26	670.07	74	2,063.34
Mascotte	Groveland	780	7,800	10	372,240	1.06	3,945.74	1,377.43	6	223.34	3,722.40	26	967.82	74	2,977.92
Mt. Lake	Lake Wales	806	806	1	33,480	1.08	361.58	123.87	6	20.09	341.49	25	85.37	75	276.21
Mt. Dora	Tavares	756	756	1	32,400	1.04	336.96	119.88	5	16.20	320.76	26	83.40	74	253.56
Nocatee	Nocatee	858	1,716	2	77,580	1.12	868.90	287.05	7	54.31	814.59	25	203.65	75	665.25
Ocala	Ocala	706	9,178	13	436,320	1.00	4,363.20	1,614.39	4	174.53	4,188.67	27	1,130.94	73	3,232.26
Ocoee	Ocoee	780	3,900	5	163,080	1.06	1,728.65	603.40	6	97.85	1,630.80	26	424.01	74	1,304.64
Okahumpka	Center Hill	745	745	1	33,345	1.03	343.45	123.27	5	16.68	326.77	26	84.96	74	258.49
Orlando	Orlando	774	10,062	13	432,180	1.06	4,581.11	1,599.10	6	259.31	4,321.89	26	1,123.67	74	3,457.44
Oviedo	Oviedo	769	1,538	2	64,800	1.05	680.40	241.67	6	38.88	641.52	26	166.80	74	513.60
Palm Harbor	Clearwater	811	811	1	32,400	1.09	353.16	119.88	6	19.44	333.72	25	83.43	75	269.73
Pierson	Deland	716	4,296	6	197,325	1.03	2,032.45	730.11	5	98.66	1,933.79	27	522.12	73	1,510.33
Pomona	Crescent City	696	696	1	33,930	1.00	339.30	125.54	4	13.57	325.73	27	87.95	73	251.35
Sebring	Sebring	830	3,320	4	132,840	1.10	1,461.24	491.51	6	79.70	1,381.54	25	345.39	75	1,115.85
Seville	Crescent City	710	15,620	22	731,160	1.00	7,311.60	2,705.31	4	292.46	7,019.14	27	1,895.17	73	5,416.43
Sorrento	Tavares	762	762	1	32,400	1.03	333.72	119.88	5	16.20	317.52	26	82.56	74	251.16
Sparlin	Lakeland	798	798	1	33,480	1.08	361.58	123.87	6	20.09	341.49	26	88.79	74	272.79
Taru	Palmetto	844	3,376	4	133,020	1.10	1,463.22	492.18	6	79.81	1,383.41	25	345.85	75	1,117.37
Thonotosassa	Tampa	792	2,376	3	97,200	1.08	1,049.76	359.64	6	58.32	991.44	26	257.77	74	791.99
Umatilla	Umatilla	759	3,795	5	162,000	1.04	1,684.80	599.40	5	81.00	1,603.80	26	416.99	74	1,267.81
Wauchula	Wauchula	833	7,497	9	329,400	1.10	3,623.40	1,218.78	6	197.64	3,425.76	25	856.44	75	2,769.96
Waverly	Lake Wales	805	10,465	13	425,520	1.08	4,595.62	1,574.41	6	255.31	4,340.31	25	1,085.08	75	3,510.54
Weirsdale	Leesburg	727	18,175	25	826,740	1.03	8,515.42	2,941.26	5	413.37	8,102.05	27	2,187.55	73	6,327.87
Winter Haven	Winter Haven	796	28,656	36	1,192,500	1.08	12,879.00	4,412.22	6	715.50	12,163.50	26	3,162.51	74	9,716.49
Winter Park	Winter Park	769	33,067	43	1,413,495	1.05	14,841.70	5,229.95	6	848.10	13,993.60	26	3,638.34	74	11,203.36
Total			542,420	693	22,981,158		$244,492.79	$84,911.85		$13,037.62	$231,455.17		$59,638.20		$184,854.59
Average Weighted Haul:															
Average per car			783		33,162		352.80	122.53		18.81			86.06		266.75
Average per 100 lbs. (cents)							106.4	36.9		5.7			26.0		80.4
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Altoona, Pa., 358 Miles from Richmond, Va.															Page 12
							Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.								
Arcadia Fla.	Arcadia Fla.	855	855	1	33,480	$1.08	$361.58	$123.87	6	$20.09	$341.49	23	$78.54	77	$283.04
Avon Park	Avon Park	829	829	1	32,400	1.07	346.68	119.88	7	22.68	324.00	23	74.52	77	272.16
Bartow	Bartow	809	809	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Clearwater	Clearwater	819	819	1	32,400	1.07	346.68	119.88	7	22.68	324.00	24	77.76	76	268.92
Elfers	New Port Richey	833	833	1	33,480	1.08	361.58	123.87	6	20.09	341.49	23	78.54	77	283.04
Island Grove	Citra	685	4,110	6	197,640	.96	1,897.34	731.27	4	79.06	1,818.28	25	454.57	75	1,442.77
Leesburg	Leesburg	740	740	1	33,480	1.00	334.80	123.88	4	13.39	321.41	25	80.35	75	254.45
Limestone	Arcadia	843	843	1	32,400	1.08	349.92	119.88	6	19.44	330.48	23	76.01	77	273.91
Plymouth	Apopka	766	766	1	33,480	1.02	341.50	123.88	5	16.74	324.76	24	77.94	76	263.56
Redland	Homestead 1,011	1,011	1,011	1	34,560	1.19	411.26	127.87	9	31.10	380.16	22	83.64	78	327.62
So. Lake Weir	Wildwood	729	2,916	4	135,900	.99	1,345.41	502.82	5	67.95	1,277.46	25	319.37	75	1,026.04
Wildwood	Wildwood	732	732	1	32,400	.99	320.76	119.88	5	16.20	304.56	25	76.14	75	244.62
Winter Garden	Winter Garden	780	780	1	32,400	1.04	336.96	119.88	6	19.44	317.52	24	76.20	76	260.76
Winter Haven	Winter Haven	796	796	1	33,480	1.05	351.54	123.94	6	20.09	331.45	24	79.55	76	271.99
Total			16,839	22	729,900		$7,446.21	$2,700.68		$388.39	$7,057.82		$1,710.11		$5,736.10
Average Weighted Haul:															
Average per car			765		33,177		338.46	122.76		17.65			77.73		260.73
Average per 100 lbs. (cents)							102.0	37.0		5.3			23.4		78.6
Baltimore, Md., 165 Miles from Richmond, Va.															
							Seaboard Air Line Origins B. & O. Delivery via Richmond, Va.								
Alva Fla.	La Belle Fla.	910	910	1	32,400	$1.05	$340.20	$56.70	8	$25.92	$314.28	18	$56.57	82	$283.63
Arcadia	Arcadia	855	12,825	15	503,910	1.01	5,089.49	881.87	7	352.74	4,736.75	18	852.62	82	4,236.87
Auburndale	Auburndale	790	22,120	28	927,180	.97	8,993.65	1,622.58	6	556.31	8,437.34	19	1,603.09	81	7,390.56
Avon Park	Avon Park	829	1,658	2	66,960	1.00	669.60	117.18	7	46.87	622.73	18	112.09	82	557.51
Clearwater	Clearwater	819	1,638	2	66,510	.99	658.45	116.39	7	46.56	611.89	18	110.14	82	548.31
Clermont	Clermont	778	1,556	2	65,880	.97	639.04	115.29	5	32.94	606.10	19	115.16	81	523.88
Elfers	New Port Richey	833	1,666	2	69,210	1.00	692.10	121.12	6	41.53	650.57	18	117.10	82	575.00
Gulf Pine	Tarpon Spgs	820	820	1	32,400	.99	320.76	56.70	6	19.44	301.32	18	54.24	82	266.52
Homestead	Homestead 1,015	5,075	5	163,620	1.11	1,816.18	286.33	9	147.26	1,668.92	17	283.72	83	1,532.46	
Lake Jem	Tavares	758	758	1	32,400	.95	307.80	56.70	6	19.44	288.36	19	54.79	81	253.01
Lake Wales	Lake Wales	810	1,620	2	69,570	.98	681.79	121.75	6	41.74	640.05	18	115.21	82	556.58
Largo	St. Petersburg	822	822	1	33,480	1.00	334.80	58.59	6	20.09	314.71	18	56.65	82	278.15
Leesburg	Leesburg	740	740	1	32,400	.92	298.08	56.70	4	12.96	285.12	19	54.17	81	243.91
[illegible]	[illegible]	[illegible]	1,624	2	66,960	1.00	669.60	117.18	6	40.18	629.42	18	113.30	82	556.30

Wellsdale.....Leesburg.....	727	18,175	25	820,740	1.03	8,615.42	2,941.26	5	413.37	8,102.05	27	2,187.55	73	6,327.87
Winter Haven.....Winter Haven.....	796	28,656	36	1,192,500	1.08	12,879.00	4,412.22	6	715.50	12,163.50	26	3,162.51	74	9,716.49
Winter Park.....Winter Park.....	769	33,067	43	1,418,495	1.05	14,841.70	5,229.95	6	848.10	13,993.60	26	3,638.34	74	11,203.36
Total.....		542,420	693	22,981,158		$244,492.79	$84,911.85		$13,037.62	$231,455.17		$59,638.20		$184,854.59
Average Weighted Haul:														
Average per car.....		783		33,162		352.80	122.53		18.81			86.06		266.75
Average per 100 lbs. (cents).....						106.4	36.9		5.7			26.0		80.4

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Altoona, Pa., 358 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Arcadia.....Fla.Arcadia.....Fla.	855	855	1	33,480	$1.08	$361.58	$123.87	6	$20.09	$341.49	23	$78.54	77	$283.04
Avon Park.....Avon Park.....	829	829	1	32,400	1.07	346.68	119.88	7	22.68	324.00	23	74.52	77	272.16
Bartow.....Bartow.....	809	809	1	32,400	1.05	340.20	119.88	6	19.44	320.76	24	76.98	76	263.22
Clearwater.....Clearwater.....	819	819	1	32,400	1.07	346.68	119.88	7	22.68	324.00	24	77.76	76	268.92
Elfers.....New Port Richey....	833	833	1	33,480	1.08	361.58	123.87	6	20.09	341.49	23	78.54	77	283.04
Island Grove.....Citra.....	685	4,110	6	197,640	.96	1,897.34	731.27	4	79.06	1,818.28	25	454.57	75	1,442.77
Leesburg.....Leesburg.....	740	740	1	33,480	1.00	334.80	123.88	4	13.39	321.41	25	80.35	75	254.45
Limestone.....Arcadia.....	843	843	1	32,400	1.08	349.92	119.88	6	19.44	330.48	23	76.01	77	273.91
Plymouth.....Apopka.....	766	766	1	33,480	1.02	341.50	123.88	5	16.74	324.76	24	77.94	76	263.56
Redland.....Homestead.....1,011		1,011	1	34,560	1.19	411.26	127.87	9	31.10	380.16	22	83.64	78	327.62
So. Lake Weir.....Wildwood.....	729	2,916	4	135,900	.99	1,345.41	502.82	5	67.95	1,277.46	25	319.37	75	1,026.04
Wildwood.....Wildwood.....	732	732	1	32,400	.99	320.76	119.88	5	16.20	304.56	25	76.14	75	244.62
Winter Garden.....Winter Garden.....	780	780	1	32,400	1.04	336.96	119.88	6	19.44	317.52	24	76.20	76	260.76
Winter Haven.....Winter Haven.....	796	796	1	33,480	1.05	351.54	123.94	6	20.09	331.45	24	79.55	76	271.99
Total.....		16,839	22	729,900		$7,446.21	$2,700.68		$388.39	$7,057.82		$1,710.11		$5,736.10
Average Weighted Haul:														
Average per car.....		765		33,177		338.46	122.76		17.65			77.73		260.73
Average per 100 lbs. (cents).....						102.0	37.0		5.3			23.4		78.6

Baltimore, Md., 165 Miles from Richmond, Va.

Seaboard Air Line Origins B. & O. Delivery via Richmond, Va.

Alva.....Fla.La Belle.....Fla.	910	910	1	32,400	$1.05	$340.20	$56.70	8	$25.92	$314.28	18	$56.57	82	$283.63
Arcadia.....Arcadia.....	855	12,825	15	503,910	1.01	5,089.49	881.87	7	352.74	4,736.75	18	852.62	82	4,236.87
Auburndale.....Auburndale.....	790	22,120	28	927,180	.97	8,993.65	1,622.58	6	556.31	8,437.34	19	1,603.09	81	7,390.56
Avon Park.....Avon Park.....	829	1,658	2	66,960	1.00	669.60	117.18	7	46.87	622.73	18	112.09	82	557.51
Clearwater.....Clearwater.....	819	1,638	2	66,510	.99	658.45	116.39	7	46.56	611.89	18	110.14	82	548.31
Clermont.....Clermont.....	778	1,556	2	65,880	.97	639.04	115.29	5	32.94	606.10	19	115.16	81	523.88
Elfers.....New Port Richey....	833	1,666	2	69,210	1.00	692.10	121.12	6	41.53	650.57	18	117.10	82	575.00
Gulf Pine.....Tarpon Spgs.....	820	820	1	32,400	.99	320.76	56.70	6	19.44	301.32	18	54.24	82	266.52
Homestead.....Homestead.....1,015		5,075	5	163,620	1.11	1,816.18	286.33	9	147.26	1,668.92	17	283.72	83	1,532.46
Lake Jem.....Tavares.....	758	758	1	32,400	.95	307.80	56.70	6	19.44	288.36	19	54.79	81	253.01
Lake Wales.....Lake Wales.....	810	1,620	2	69,570	.98	681.79	121.75	6	41.74	640.05	18	115.21	82	556.58
Largo.....St. Petersburg.....	822	822	1	33,480	1.00	334.80	58.59	6	20.09	314.71	18	56.65	82	278.15
Leesburg.....Leesburg.....	740	740	1	32,400	.92	298.08	56.70	4	12.96	285.12	19	54.17	81	243.91
Manatee.....Manatee.....	842	1,684	2	66,960	1.00	669.60	117.18	6	40.18	629.42	18	113.30	82	556.30
Montverde.....Ferndale.....	769	769	1	32,400	.96	311.04	91.70	5	16.20	294.84	19	56.02	81	255.02
Nocatee.....Nocatee.....	858	3,432	4	138,060	1.02	1,408.21	241.88	7	96.64	1,311.57	18	236.08	82	1,172.13
Ocoee.....Ocoee.....	780	1,560	2	64,800	.96	622.08	113.40	6	38.88	583.20	19	110.81	81	511.27
Orlando.....Orlando.....	774	17,028	22	787,950	.96	7,564.32	1,376.20	6	472.77	7,091.55	19	1,347.39	81	6,216.93
Plymouth.....Apopka.....	766	5,362	7	234,360	.95	2,226.42	410.13	5	117.18	2,109.24	19	400.76	81	1,825.66
Sebring.....Sebring.....	838	838	1	32,400	1.00	324.00	56.40	6	19.44	304.56	18	54.82	82	269.18
South Lake Weir...Wildwood.....	729	729	1	33,480	.92	308.02	58.59	4	13.39	294.63	19	55.98	81	252.04
Sulphur Springs....Tampa.....	801	801	1	33,480	.98	328.10	58.59	6	20.09	308.01	18	55.44	82	272.66
Tildenville.....Winter Garden.....	781	13,277	17	586,890	.96	5,634.14	1,027.04	5	293.45	5,340.69	19	1,014.74	81	4,619.40
West Frostproof...Avon Park.....	818	1,636	2	65,880	1.00	658.80	115.29	7	46.12	612.68	18	110.28	82	548.52
Winter Garden.....Winter Garden.....	780	20,280	26	865,305	.96	8,306.93	1,512.56	5	432.65	7,874.28	19	1,496.11	81	6,810.82
Winter Haven.....Winter Haven.....	796	6,368	8	260,280	.97	2,524.72	455.49	6	156.17	2,368.55	19	450.02	81	2,074.70
Total.....		125,972	157	5,298,165		$51,728.32	$9,302.35		$3,126.96	$48,601.36		$9,087.30		$42,641.02
Average Weighted Haul:														
Average per car.....		802		33,746		329.48	59.25		19.92			57.88		271.60
Average per 100 lbs. (cents).....						97.6	17.6		5.9			17.2		80.4

[fol. 2640]

EXHIBIT No. 2—Continued

Baltimore, Md., 165 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Origin	Basing point	Southern Miles	Southern Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lbs. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. decision North %	North Revenue	South %	South Revenue
Alva....Fla.	La Belle....Fla.	910	910	1	32,400	$1.05	$340.20	$56.70	8	$25.92	$314.28	18	$56.57	82	$283.63
Arcadia	Arcadia	855	3,420	4	132,840	1.01	1,341.68	232.47	7	92.99	1,248.69	18	224.76	82	1,116.92
Auburndale	Auburndale	790	30,020	38	1,256,805	.97	12,191.01	2,199.38	6	754.08	11,436.93	19	2,173.02	81	10,017.99
Avon Park	Avon Park	829	1,658	2	64,800	1.00	648.00	113.40	7	45.36	602.64	18	108.48	82	539.52
Bartow	Bartow	809	2,427	3	100,530	.98	985.19	175.92	6	60.32	924.87	18	166.48	82	818.71
Brandon	Tampa	805	805	1	32,400	.98	317.52	56.70	6	19.44	298.08	18	53.65	82	263.87
Brooksville	Brooksville	762	762	1	33,480	.95	318.06	58.59	5	16.74	301.32	19	57.25	81	260.81
Clearwater	Clearwater	819	8,190	10	340,830	.99	3,374.22	596.45	7	238.58	3,135.64	18	564.42	82	2,809.80
Clermont	Clermont	778	778	1	32,400	.97	314.28	56.71	5	16.20	298.08	19	56.64	81	257.64
Elfers	New Port Richey	833	1,666	2	66,960	1.00	669.60	117.18	6	40.18	629.42	18	113.30	82	556.30
Ft. Green	Brewster	827	1,654	2	65,880	1.01	665.39	115.29	7	46.12	619.27	18	111.47	82	553.92
Homestead	Homestead	1,015	3,045	3	98,280	1.11	1,090.91	171.99	9	88.45	1,002.46	17	170.42	83	920.49
Island Grove	Citra	685	9,590	14	466,065	.89	4,147.98	815.61	4	186.43	3,961.55	20	792.31	80	3,355.67
Knights	Plant City	789	3,945	5	165,240	.97	1,602.83	287.28	6	99.14	1,503.69	19	285.70	81	1,317.13
Lake Jem	Tavares	758	4,548	6	197,730	.95	1,878.44	346.03	6	118.64	1,759.80	19	334.36	81	1,544.08
Lakemont	Sebring	834	9,174	11	366,345	1.00	3,663.45	641.10	6	219.81	3,443.64	18	619.86	82	3,043.59
Lake Wales	Lake Wales	810	3,240	4	131,760	.98	1,291.25	230.58	6	79.06	1,212.19	18	218.19	82	1,073.06
Largo	St. Petersburg	822	822	1	33,480	1.00	334.80	58.59	6	20.09	314.71	18	56.65	82	278.15
Leesburg	Leesburg	740	5,180	7	238,320	.92	2,192.54	417.05	4	95.33	2,097.21	19	398.47	81	1,794.07
Limestone	Arcadia	843	843	1	38,970	1.01	393.60	68.20	7	27.28	366.32	18	65.94	82	327.66
Manatee	Manatee	842	5,052	6	195,660	1.00	1,956.60	342.38	6	117.40	1,839.20	18	331.06	82	1,625.54
Montverde	Ferndale	769	1,538	2	64,800	.96	622.08	113.40	5	32.40	589.68	19	112.04	81	510.04
Nocatee	Nocatee	858	2,574	3	103,050	1.02	1,051.11	180.34	7	72.14	978.97	18	176.21	82	874.90
Ocoee	Ocoee	780	4,680	6	195,480	.96	1,876.61	342.10	6	117.29	1,759.32	19	334.27	81	1,542.34
Ona	Arcadia	835	5,010	6	206,415	1.01	2,084.79	361.66	7	144.49	1,940.30	18	349.25	82	1,735.54
Orange Heights	Hawthorne	666	1,998	3	97,200	.88	855.36	170.10	4	38.38	816.98	20	163.40	80	691.96
Oviedo	Oviedo	769	1,538	2	65,880	.95	625.86	115.29	6	39.53	586.33	19	111.40	81	514.46
Palmetto	Palmetto	841	1,682	2	66,960	1.00	669.60	117.18	6	40.18	629.42	18	113.30	82	556.30
Parrish	Parrish	830	6,640	8	269,640	1.00	2,696.40	471.90	7	188.75	2,507.65	18	451.38	82	2,245.02
Plymouth	Apopka	766	8,426	11	365,040	.95	3,467.88	643.72	5	183.52	3,284.36	19	624.03	81	2,843.85
Redland	Homestead	1,011	1,011	1	33,480	1.11	371.63	58.59	9	30.13	341.50	17	58.06	83	313.57
So. Lake Weir	Wildwood	729	10,206	14	461,160	.92	4,242.67	807.04	4	184.46	4,058.21	19	771.06	81	3,471.61
Sulphur Springs	Tampa	801	801	1	32,400	.98	317.52	56.70	6	19.44	298.08	18	53.65	82	263.87
Tampa	Tampa	810	2,430	3	97,200	.98	952.56	170.10	6	58.32	894.24	18	160.96	82	791.60
Valrico	Tampa	803	2,409	3	97,200	.98	952.56	170.10	6	58.32	894.24	18	160.96	82	791.60
Welcome Jct	Mulberry	804	1,608	2	65,880	.98	645.62	115.29	6	39.53	606.09	18	109.10	82	536.52
West Frostproof	Avon Park	818	4,090	5	168,660	1.00	1,686.60	295.15	7	118.06	1,568.54	18	282.34	82	1,404.26
Winter Garden	Winter Garden	780	4,680	6	196,920	.96	1,890.43	343.97	5	98.46	1,791.97	19	340.47	81	1,549.96
Winter Haven	Winter Haven	796	22,288	28	911,520	.97	8,841.74	1,595.16	6	546.91	8,294.83	19	1,576.02	81	7,265.72
Total			181,338	229	7,590,060		$73,568.57	$13,285.39		$4,417.87	$69,150.70		$12,906.90		$60,661.67
Average Weighted Haul:															
Average per car			792		33,144		321.26	58.01		19.29			56.36		264.90
Average per 100 lbs. (cents)							96.9	17.5		5.8			17.0		79.9

Buffalo, N. Y., 550 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Arcadia....Fla.	Arcadia....Fla.	855	2,565	3	97,200	$1.16	$1,127.52	$369.36	7	$68.04	$1,059.48	29	$307.25	71	$820.27
Auburndale	Auburndale	790	10,270	13	427,860	1.15	4,920.39	1,625.88	6	256.72	4,663.67	30	1,399.10	70	3,521.29
Bartow	Bartow	809	1,618	2	64,800	1.16	751.68	246.24	6	38.88	712.80	29	206.71	71	544.97
Bradenton	Bradenton	842	842	1	32,400	1.18	382.32	123.12	6	19.44	362.88	29	105.24	71	277.08
Brandon	Tampa	805	805	1	32,400	1.16	375.84	123.12	6	19.44	356.40	29	103.36	71	272.48
Citra	Citra	687	2,061	3	100,800	1.07	1,078.56	383.04	4	40.32	1,038.24	32	332.24	68	746.32
Clearwater	Clearwater	819	3,276	4	130,680	1.16	1,515.89	496.59	6	78.41	1,437.48	29	416.87	71	1,099.02

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Elfers	New Port Richey	833	5,831	7	231,930	1.18	2,736.77	881.33	6	139.16	2,597.61	29	753.31	71	1,983.46
Ft. Ogden	Ft. Ogden	865	865	1	33,480	1.19	398.41	127.22	7	23.44	374.97	29	108.74	71	289.67
[illegible]	[illegible]	820	1,640	2	64,800	1.16	751.68	246.24	6	38.88	712.80	29	206.71	71	544.97
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Arcadia.....Fla.	Arcadia.....Fla.	855	2,565	3	97,200	$1.16	$1,127.52	$369.36	7	$68.04	$1,059.48	29	$307.25	71	$820.27
Auburndale.....	Auburndale.....	790	10,270	13	427,860	1.15	4,920.39	1,625.88	6	256.72	4,663.67	30	1,399.10	70	3,521.29
Bartow.....	Bartow.....	809	1,618	2	64,800	1.16	751.68	246.24	6	38.88	712.80	29	206.71	71	544.97
Bradenton.....	Bradenton.....	842	842	1	32,400	1.18	382.32	123.12	6	19.44	362.88	29	105.24	71	277.08
Brandon.....	Tampa.....	805	805	1	32,400	1.16	375.84	123.12	6	19.44	356.40	29	103.36	71	272.48
Citra.....	Citra.....	687	2,061	3	100,800	1.07	1,078.56	383.04	4	40.32	1,038.24	32	332.24	68	746.32
Clearwater.....	Clearwater.....	819	3,276	4	130,680	1.16	1,515.89	496.59	6	78.41	1,437.48	29	416.87	71	1,099.02
[fol. 2641]															Page 14
Elfers.....	New Port Richey....	833	5,831	7	231,930	1.18	2,736.77	881.33	6	139.16	2,597.61	29	753.31	71	1,983.46
Ft. Ogden.....	Ft. Ogden.....	865	865	1	33,480	1.19	398.41	127.22	7	23.44	374.97	29	108.74	71	289.67
Gulf Pine.....	Tarpon Spgs.....	820	1,640	2	64,800	1.16	751.68	246.24	6	38.88	712.80	29	206.71	71	544.97
Lake Jem.....	Tavares.....	758	758	1	33,480	1.13	378.32	127.22	6	20.09	358.23	30	107.96	70	270.85
Lake Wales.....	Lake Wales.....	810	2,430	3	99,360	1.16	1,152.58	377.58	6	59.62	1,092.96	29	316.47	71	835.62
Largo.....	St. Petersburg.....	822	4,110	5	166,320	1.18	1,372.58	632.00	6	69.79	1,302.79	29	377.81	71	994.77
Leesburg.....	Leesburg.....	740	740	1	33,300	1.10	366.30	126.54	5	16.65	349.65	31	108.39	69	257.91
Manatee.....	Manatee.....	842	5,894	7	238,365	1.18	2,812.71	905.78	6	143.02	2,669.69	29	774.21	71	2,038.50
Manavista.....	Manatee.....	842	5,894	7	226,800	1.18	2,676.24	861.84	6	136.08	2,540.16	29	736.65	71	1,939.59
Nocatee.....	Nocatee.....	858	858	1	33,480	1.19	398.41	127.22	7	23.44	374.97	29	108.74	71	289.67
Ona.....	Arcadia.....	835	13,360	16	534,915	1.19	6,365.49	2,032.77	7	374.44	5,991.05	29	1,737.40	71	4,628.09
Orlando.....	Orlando.....	774	26,316	34	1,159,695	1.13	13,104.55	4,406.80	5	579.85	12,524.70	30	3,757.41	70	9,347.14
Palmetto.....	Palmetto.....	841	1,682	2	65,880	1.18	777.38	250.34	6	39.53	737.85	29	213.98	71	563.40
Plant City.....	Plant City.....	793	793	1	32,400	1.15	372.60	123.12	6	19.44	353.16	30	105.95	70	266.65
Sarasota.....	Sarasota.....	854	3,416	4	133,110	1.19	1,584.01	505.82	7	93.18	1,490.83	29	432.34	71	1,151.67
Sulphur Springs....	Tampa.....	801	1,602	2	64,800	1.16	751.68	246.24	6	38.88	712.80	29	206.71	71	544.97
Valrico.....	Tampa.....	803	803	1	32,400	1.16	375.84	123.12	6	19.44	356.40	29	103.36	71	272.48
West Frostproof...	Avon Park.....	818	818	1	32,400	1.18	382.32	123.12	6	19.44	362.88	29	105.24	71	277.08
Winter Garden....	Winter Garden.....	780	16,380	21	698,805	1.13	7,896.50	2,655.46	5	349.40	7,547.10	30	2,264.13	70	5,632.37
Winter Haven.....	Winter Haven.....	796	3,980	5	164,160	1.15	1,887.84	623.80	6	98.50	1,789.34	30	536.80	70	1,351.04
Total.....			119,607	149	4,966,020		$56,694.41	$18,870.91		$2,823.52	$53,870.89		$15,933.08		$40,761.33
Average Weighted Haul:															
Average per car.....			803		33,329		380.50	126.65		18.95			106.93		273.57
Average per 100 lbs. (cents).....							114.2	38.0		5.7			32.1		82.1

Jersey City, N. J., 336 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Alva.....Fla.	La Belle.....Fla.	910	2,730	3	97,200	$1.13	$1,098.36	$218.70	8	$77.76	$1,020.60	22	$224.53	78	$873.83
Arcadia.....	Arcadia.....	855	855	1	32,400	1.10	356.40	72.90	7	22.68	333.72	22	73.42	78	282.98
Auburndale.....	Auburndale.....	790	22,120	28	923,760	1.05	9,699.48	2,078.47	6	554.26	9,145.22	23	2,103.40	77	7,596.08
Bartow.....	Bartow.....	809	20,225	25	815,940	1.06	8,648.96	1,835.86	6	489.56	8,159.40	23	1,876.66	77	6,772.30
Brooksville.....	Brooksville.....	762	762	1	32,400	1.03	333.72	72.90	5	16.20	317.52	23	73.03	77	260.69
Clearwater.....	Clearwater.....	819	4,914	6	199,800	1.07	2,137.86	449.57	7	139.86	1,998.00	23	459.54	77	1,678.32
Clermont.....	Clermont.....	778	31,120	40	1,527,570	1.05	16,039.49	3,437.05	6	916.54	15,122.95	23	3,478.28	77	12,561.21
Dade City.....	Dade City.....	768	2,304	3	99,000	1.04	1,029.60	222.75	6	59.40	970.20	23	223.15	77	806.45
Elfers.....	New Port Richey....	833	2,499	3	99,360	1.08	1,073.09	223.55	6	59.62	1,013.47	22	222.96	78	850.13
Ft. Ogden.....	Ft. Ogden.....	865	1,730	2	70,020	1.10	770.22	155.16	7	49.01	721.21	22	158.67	78	611.55
Goldstein.....	Tampa.....	794	5,558	7	243,900	1.07	2,609.73	558.91	6	146.34	2,463.39	23	566.58	77	2,043.15
Goldstein.....	Tampa.....	794	794	1	38,723	1.07	414.34	87.13	6	22.23	392.11	23	90.19	77	324.15
Lakemont.....	Sebring.....	834	3,336	4	131,760	1.08	1,423.01	296.46	6	79.06	1,343.95	22	295.67	78	1,127.34
Lake Wales.....	Lake Wales.....	810	6,480	8	264,600	1.06	2,804.76	594.36	6	158.76	2,646.00	23	608.58	77	2,196.18
Leesburg.....	Leesburg.....	740	11,840	16	542,430	1.00	5,424.30	1,220.47	4	216.97	5,207.33	24	1,249.76	76	4,174.54
Miami.....	Miami.....	987	1,974	2	70,560	1.17	825.55	282.24	8	56.45	769.10	21	161.51	79	664.04
Nocatee.....	Nocatee.....	858	4,290	5	164,160	1.10	1,805.76	369.36	7	114.91	1,690.85	22	371.99	78	1,433.77
Orlando.....	Orlando.....	774	3,096	4	158,760	1.04	1,651.10	357.20	6	95.26	1,555.84	23	357.84	77	1,293.26
Palmetto.....	Palmetto.....	841	841	1	35,640	1.08	384.91	80.19	6	21.38	363.53	22	79.98	78	304.93
Plymouth.....	Apopka.....	766	766	1	33,480	1.04	348.19	75.33	6	20.09	328.10	23	75.46	77	272.73
Sarasota.....	Sarasota.....	854	854	1	32,400	1.10	356.40	72.90	7	22.68	333.72	22	73.42	78	282.98
Sebring.....	Sebring.....	838	1,676	2	64,800	1.08	699.84	145.80	6	38.88	660.96	22	145.41	78	554.43
Tampa.....	Tampa.....	810	810	1	32,400	1.06	343.44	72.90	6	19.44	324.00	23	74.52	77	268.92
Tavares.....	Tavares.....	751	3,755	5	172,620	1.02	1,760.72	388.41	5	86.31	1,674.41	24	401.86	76	1,358.86
West Frostproof...	Avon Park.....	818	12,270	15	491,400	1.08	5,307.12	1,105.63	6	294.84	5,012.28	23	1,152.82	77	4,154.30
Winter Haven.....	Winter Haven.....	796	12,736	16	530,190	1.05	5,567.00	1,192.93	6	318.11	5,248.89	23	1,207.24	77	4,359.76
Total.....			160,335	201	6,905,273		$72,913.35	$15,667.13		$4,096.60	$68,816.75		$15,806.48		$57,106.87
Average Weighted Haul:															
Average per car.....			798		34,355		362.75	77.95		20.38			78.64		284.11
Average per 100 lbs. (cents).....							105.6	22.7		5.9			22.9		82.7

[fol. 2642]

EXHIBIT No 2—Continued

New York—Proper, 346 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Origin	Basing Point	Southern Miles	Southern Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lbs. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. Decision North %	North Revenue	South %	South Revenue
Alturas Fla.	Lake Wales Fla.	811	17,842	22	723,150	$1.06	$7,665.39	$1,627.10	6	$433.89	$7,231.50	23	$1,663.25	77	$6,002.14
Alva	La Belle	910	29,120	32	1,043,280	1.13	11,789.06	2,347.37	8	834.62	10,954.44	22	2,409.98	78	9,379.08
Apopka	Apopka	769	6,152	8	263,700	1.06	2,795.22	593.32	6	158.22	2,637.00	23	606.51	77	2,188.71
Arcadia	Arcadia	855	29,070	34	1,123,290	1.10	12,356.19	2,528.42	7	786.30	11,569.89	22	2,545.38	78	9,810.81
Auburndale	Auburndale	790	61,620	78	2,570,850	1.05	26,993.93	5,809.49	6	1,542.51	25,451.42	23	5,853.83	77	21,140.10
Avon Park	Avon Park	829	4,974	6	198,720	1.08	2,146.18	447.11	6	119.23	2,026.95	22	445.93	78	1,700.25
Bartow	Bartow	809	12,944	16	524,880	1.06	5,563.73	1,180.99	6	314.93	5,248.80	23	1,207.22	77	4,356.51
Belgium	Arcadia	859	8,590	10	341,550	1.10	3,757.05	768.69	7	239.09	3,517.96	22	773.95	78	2,983.10
Bradenton	Bradenton	842	71,570	85	2,863,800	1.08	30,929.04	6,443.54	6	1,718.28	29,210.76	22	6,426.37	78	24,502.67
Brooksville	Brooksville	762	25,146	33	1,098,945	1.03	11,319.13	2,472.58	5	549.47	10,769.66	23	2,477.02	77	8,842.11
Citra	Citra	687	54,960	80	2,656,755	.97	25,770.52	6,070.95	4	1,062.70	24,707.82	24	5,929.88	76	19,840.64
Clearwater	Clearwater	819	266,175	325	10,995,120	1.07	117,647.78	24,739.12	7	7,696.58	109,951.20	23	25,288.78	77	92,359.00
Clermont	Clermont	778	43,568	56	2,005,515	1.04	20,857.36	4,511.87	6	1,203.31	19,654.05	23	4,520.43	77	16,336.93
Dade City	Dade City	768	9,216	12	393,660	1.04	4,094.06	885.73	6	236.20	3,857.86	23	887.31	77	3,206.75
Elfers	New Port Richey	833	112,455	135	4,532,805	1.08	48,954.29	10,198.62	6	2,719.68	46,234.61	22	10,171.61	78	38,782.68
Ft. Ogden	Ft. Ogden	865	2,595	3	99,360	1.10	1,092.96	223.56	7	69.55	1,023.41	22	225.15	78	867.81
Gulf Pine	Tarpon Spgs	820	3,280	4	138,330	1.07	1,480.13	311.35	6	83.00	1,397.13	23	321.34	77	1,158.79
Homestead	Homestead	1,015	2,030	2	68,490	1.19	815.03	154.10	9	61.64	753.39	21	158.21	79	656.82
Island Grove	Citra	685	34,935	51	1,668,105	.97	16,180.62	3,753.25	4	667.24	15,513.38	24	3,723.21	76	12,457.41
Knights	Plant City	789	789	1	32,400	1.05	340.20	72.90	6	19.44	320.76	23	73.77	77	266.43
Lake Jem	Tavares	758	42,448	56	1,853,820	1.04	19,279.73	4,171.04	5	926.91	18,352.82	24	4,404.68	76	14,875.05
Lakemont	Sebring	834	45,870	55	1,816,965	1.08	19,623.22	4,088.13	6	1,090.18	18,533.04	22	4,077.27	78	15,545.95
Lake Wales	Lake Wales	810	42,120	52	1,700,100	1.06	18,021.06	3,825.19	6	1,020.06	17,001.00	23	3,910.23	77	14,110.83
Largo	St. Petersburg	822	10,686	13	428,760	1.08	4,630.61	964.53	6	257.26	4,373.35	23	1,005.87	77	3,624.74
Leesburg	Leesburg	740	187,960	254	8,599,635	1.00	85,996.35	19,349.65	4	3,439.85	82,556.50	24	19,813.56	76	66,182.79
Limestone	Arcadia	843	2,529	3	110,700	1.10	1,217.70	239.49	7	77.49	1,140.21	22	250.85	78	966.85
Manatee	Manatee	842	55,572	66	2,187,810	1.08	23,628.35	4,922.52	6	1,312.69	22,315.66	22	4,909.45	78	18,718.90
Miami	Miami	987	5,922	6	194,400	1.17	2,274.48	437.40	8	155.52	2,118.96	21	444.98	79	1,829.50
Montverde	Ferndale	769	769	1	32,400	1.05	340.20	72.90	6	19.44	320.76	23	73.77	77	266.43
Nocatee	Nocatee	858	17,160	20	690,705	1.10	7,597.76	1,554.08	7	483.49	7,114.27	22	1,565.14	78	6,032.62
Ocala	Ocala	706	8,472	12	402,300	.99	3,982.77	905.18	5	201.15	3,781.62	24	907.59	76	3,075.18
Ocoee	Ocoee	780	31,730	38	1,262,925	1.04	13,134.42	2,840.68	6	757.76	12,376.66	23	2,846.63	77	10,287.79
Ona	Arcadia	835	2,505	3	101,610	1.10	1,117.71	228.62	7	71.13	1,046.58	22	230.25	78	887.46
Orange Heights	Hawthorne	666	1,998	3	97,290	.96	933.98	218.90	4	38.92	895.06	25	223.77	75	710.21
Orlando	Orlando	774	113,004	146	5,073,255	1.04	52,761.85	11,415.94	6	3,043.95	49,717.90	23	11,435.12	77	41,326.73
Oviedo	Oviedo	769	43,833	57	1,908,000	1.04	19,843.20	4,292.97	6	1,144.80	18,698.40	23	4,300.63	77	15,542.57
Palmetto	Palmetto	841	93,351	111	3,782,430	1.08	40,850.24	8,541.31	6	2,269.46	38,580.78	22	8,487.77	78	32,362.47
Parrish	Parrish	830	22,410	27	914,130	1.08	9,872.60	2,056.75	6	548.48	9,324.12	22	2,051.31	78	7,821.29
Plant City	Plant City	793	4,758	6	197,640	1.05	2,075.22	444.69	6	118.58	1,956.64	23	450.03	77	1,625.19
Plymouth	Apopka	766	145,540	190	6,369,345	1.04	66,241.19	14,330.75	6	3,821.61	62,419.58	23	14,356.50	77	51,884.69
St. Petersburg	St. Petersburg	836	836	1	32,400	1.08	349.92	72.90	6	19.44	330.48	22	72.71	78	277.21
Sarasota	Sarasota	854	19,642	23	762,480	1.10	8,387.28	1,715.56	7	533.74	7,853.54	22	1,727.78	78	6,659.50
So. Lake Weir	Wildwood	729	13,851	19	633,960	1.00	6,339.60	1,426.41	4	253.58	6,086.02	24	1,460.64	76	4,878.96
Sulphur Springs	Tampa	801	13,617	17	491,220	1.06	5,206.93	1,105.24	6	294.73	4,912.20	23	1,129.81	77	4,077.12
Summerfield	Wildwood	721	52,633	73	2,405,160	1.00	24,051.60	5,411.76	4	962.06	23,089.54	24	5,541.49	76	18,510.11
Tampa	Tampa	810	8,100	10	325,080	1.06	3,445.85	736.42	6	195.05	3,250.80	23	747.68	77	2,698.17
Tavares	Tavares	751	41,305	55	1,845,675	1.02	18,825.89	4,152.88	5	922.84	17,903.05	24	4,296.73	76	14,529.16
Terra Ceia	Palmetto	842	6,736	8	262,440	1.08	2,834.35	603.80	6	157.46	2,676.89	22	588.92	78	2,245.43
Tildenville	Winter Garden	781	294,437	377	12,936,465	1.04	134,539.24	29,126.97	6	7,761.88	126,777.36	23	29,158.79	77	105,380.45
Valrico	Tampa	803	34,529	43	1,416,330	1.06	15,013.10	3,205.25	6	849.80	14,163.30	23	3,257.56	77	11,755.54
Wellsgrove Spur	Ft. Ogden	861	3,444	4	131,760	1.10	1,449.36	296.46	7	92.23	1,357.13	22	298.57	78	1,150.79
West Frostproof	Avon Park	818	6,544	8	259,200	1.08	2,799.36	583.20	6	155.52	2,643.84	23	608.08	77	2,191.28
Wildwood	Wildwood	732	59,292	81	2,676,825	1.00	26,768.25	6,022.86	4	1,070.73	25,697.52	24	6,167.40	76	20,600.85
Winter Garden	Winter Garden	780	343,980	441	14,237,235	1.04	148,067.24	32,033.66	6	8,542.34	139,524.90	23	32,090.73	77	115,976.51
Winter Haven	Winter Haven	796	206,164	259	8,583,750	1.05	90,129.38	19,313.46	6	5,150.25	84,979.13	23	19,545.20	77	70,584.18
Total			2,780,778	3,531	118,066,905		$1,234,177.86	$265,847.61		$68,276.26	$1,165,901.60		$268,146.62		$966,031.24
Average Weighted Haul:															
Average per car			788		33,437		349.53	75.29		19.34			75.94		273.59
Average per 100 lbs. (cents)							1.045	22.5		5.8			22.7		81.8

Average Weighted Haul:															
Average per car		788		33,437		349.53	75.29		19.34				75.94		273.59
Average per 100 lbs. (cents)						1.045	22.5		5.8				22.7		81.8

[fol. 2643]

Philadelphia, Pa., 253 Miles from Richmond, Va.

Seaboard Air Line Origins B. & O. Delivery via Richmond, Va.

Alturas	Fla.	Lake Wales	Fla.	811	8,110	10	328,770	$1.02	$3,353.45	$621.40	6	$197.26	$3,156.19	19	$599.68	81	$2,753.77
Alva		La Belle		910	2,730	3	98,280	1.09	1,071.25	185.41	8	78.62	992.63	18	178.67	82	892.58
Arcadia		Arcadia		855	7,695	9	295,920	1.05	3,107.16	560.24	7	207.14	2,900.02	19	551.00	81	2,556.16
Auburndale		Auburndale		790	15,010	19	619,380	1.01	6,255.74	1,172.26	6	371.63	5,884.11	19	1,117.98	81	5,137.76
Avon Park		Avon Park		829	829	8	264,780	1.04	2,753.71	499.74	7	185.35	2,568.36	19	487.99	81	2,265.72
Bartow		Bartow		809	9,708	12	397,125	1.02	4,050.68	751.14	6	238.28	3,812.40	19	724.36	81	3,326.32
Bradenton		Bradenton		842	1,684	2	65,880	1.04	685.15	124.52	7	46.12	639.03	19	121.42	81	563.73
Brooksville		Brooksville		762	6,858	9	297,000	.99	2,940.30	562.33	5	148.50	2,791.80	20	558.36	80	2,381.94
Citra		Citra		687	3,435	5	164,250	.93	1,527.53	312.07	4	65.70	1,461.83	21	306.98	79	1,220.55
Clearwater		Clearwater		819	11,466	14	466,380	1.02	4,757.08	884.17	6	279.83	4,477.25	19	850.68	81	3,906.40
Clermont		Clermont		778	3,890	5	614,160	1.00	1,641.60	311.90	5	82.08	1,559.52	20	311.90	80	1,329.70
Elfers		New Port Richey		833	6,664	8	263,520	1.04	2,740.61	499.38	7	184.46	2,556.15	19	485.67	81	2,254.94
Ft. Ogden		Ft. Ogden		865	2,595	3	99,360	1.05	1,043.28	188.43	7	69.55	973.73	19	185.01	81	858.27
Gulf Pine		Tarpon Spgs		820	3,280	4	129,600	1.02	1,321.92	245.58	6	77.76	1,244.16	19	236.39	81	1,085.53
Island Grove		Citra		685	685	1	32,400	.93	301.32	61.56	4	12.96	288.36	21	60.56	79	240.76
Jacksonville		Jacksonville		621	1,242	2	64,800	.85	550.80	122.47			550.80	22	121.18	78	429.62
Lake Jem		Tavares		758	5,306	7	230,355	.99	2,280.51	421.59	6	138.21	2,142.30	20	428.46	80	1,852.05
Lakemont		Sebring		834	2,502	3	98,280	1.04	1,032.51	185.41	7	69.50	963.01	19	182.97	81	849.54
Lake Wales		Lake Wales		810	12,150	15	502,110	1.02	5,121.52	946.66	6	301.27	4,820.25	19	915.85	81	4,205.67
Leesburg		Leesburg		740	93,240	126	4,656,240	.96	44,699.90	8,822.78	5	2,328.12	42,371.78	20	8,474.36	80	36,225.54
Manatee		Manatee		842	2,526	3	104,400	1.04	1,085.76	196.94	7	73.08	1,012.68	19	192.41	81	893.35
Montverde		Ferndale		769	769	1	32,400	.99	320.76	61.56	5	16.20	304.56	20	60.91	80	259.85
Nocatee		Nocatee		858	858	1	32,400	1.05	340.20	61.56	7	22.68	317.52	19	60.33	81	279.87
Ocoee		Ocoee		780	1,560	2	65,880	.99	652.21	123.69	5	32.94	619.27	20	123.85	80	528.36
Ona		Arcadia		835	835	1	32,400	1.05	340.20	61.56	7	22.68	317.52	19	60.33	81	279.87
Orange Heights		Hawthorne		666	666	1	32,400	.92	298.08	61.56	4	12.96	285.12	21	59.88	79	238.20
Orlando		Orlando		774	23,994	31	1,134,225	.99	11,228.83	2,148.37	5	567.12	10,661.71	20	2,132.34	80	9,096.49
Oviedo		Oviedo		769	18,456	24	819,135	.99	8,109.44	1,556.34	5	409.57	7,699.87	20	1,539.97	80	6,569.47
Palmetto		Palmetto		841	10,933	13	436,050	1.04	4,534.92	828.15	7	305.24	4,229.68	19	803.64	81	3,731.28
Parrish		Parrish		830	1,660	2	65,880	1.04	685.15	124.50	7	46.12	639.03	19	121.42	81	563.73
Plymouth		Apopka		766	39,066	51	1,724,580	.99	17,073.34	3,256.45	5	862.29	16,211.05	20	3,242.21	80	13,831.13
Sarasota		Sarasota		854	3,416	4	130,500	1.05	1,370.25	247.30	7	91.35	1,278.90	19	242.99	81	1,127.26
Sebring		Sebring		838	1,676	2	65,880	1.04	685.15	124.52	7	46.12	639.03	19	121.42	81	563.73
South Lake Weir		Wildwood		729	1,458	2	65,880	.96	632.45	125.17	5	32.94	599.51	20	119.90	80	512.55
Sulphur Springs		Tampa		801	8,811	11	366,840	1.02	3,741.77	693.70	6	220.10	3,521.67	19	669.12	81	3,072.65
Tavares		Tavares		751	13,518	18	601,605	.98	5,895.73	1,140.10	6	360.96	5,534.77	20	1,106.95	80	4,788.78
Tildenville		Winter Garden		781	1,562	2	68,040	1.01	687.20	123.42	5	34.02	653.18	19	124.10	81	563.10
Valrico		Tampa		803	8,030	10	327,240	1.02	3,337.85	620.47	6	196.34	3,141.51	19	596.89	81	2,740.96
West Frostproof		Avon Park		818	7,362	9	292,725	1.04	3,044.34	550.98	7	204.91	2,839.43	19	539.49	81	2,504.85
Winter Garden		Winter Garden		780	86,580	111	3,625,785	.99	35,895.27	6,907.66	5	1,812.89	34,082.38	20	6,816.48	80	29,078.79
Winter Haven		Winter Haven		796	13,532	17	555,120	1.01	5,606.71	1,048.82	6	333.07	5,273.64	19	1,001.99	81	4,604.72
Total					446,347	581	19,817,955		$196,801.63	$37,541.86		$10,785.92	$186,015.71		$36,636.09		$160,165.54
Average Weighted Haul:																
Average per car					768		34,110		338.73	64.62		18.56			63.06		275.67
Average per 100 lbs. (cents)									99.3	18.9		5.4			18.5		80.8

[fol. 2644]

Philadelphia, Pa. 253 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Alturas	Fla.	Lake Wales	Fla.	811	811	1	33,480	$1.02	$341.50	$63.61	6	$20.09	$321.41	19	$61.07	81	$280.43
Alva		La Belle		910	4,550	5	162,000	1.09	1,765.80	405.28	8	129.60	1,636.20	18	294.52	82	1,471.28
Arcadia		Arcadia		855	1,710	2	64,800	1.05	680.40	123.12	7	45.36	635.04	19	120.66	81	559.74
Auburndale		Auburndale		790	11,850	15	500,850	1.01	5,058.59	951.66	6	300.51	4,758.08	19	904.04	81	4,154.55
Avon Park		Avon Park		829	829	1	33,480	1.04	348.19	63.61	7	23.44	324.75	19	61.70	81	286.49
Bartow		Bartow		809	4,854	6	203,220	1.02	2,072.84	414.34	6	121.93	1,950.91	19	370.67	81	1,702.17
Bradenton		Bradenton		842	842	1	32,400	1.04	336.96	61.56	7	22.68	314.28	19	59.71	81	277.25
Brooksville		Brooksville		762	11,430	15	497,880	.99	4,929.01	945.95	5	248.94	4,680.07	20	936.01	80	3,993.00
Citra		Citra		687	13,053	19	637,470	.93	5,928.47	1,211.21	4	254.99	5,673.48	21	1,191.43	79	4,737.04
Clearwater		Clearwater		819	16,380	20	654,300	1.02	6,673.86	1,243.17	6	392.58	6,281.28	19	1,193.44	81	5,480.42
Clermont		Clermont		778	3,890	5	171,990	1.00	1,719.90	326.77	5	86.00	1,633.90	20	326.78	80	1,393.12
Dade City		Dade City		768	768	1	33,480	.99	331.45	63.62	5	16.74	314.71	20	62.94	80	268.51
Elfers		New Port Richey		833	4,165	5	165,[illegible]	1.04	1,717.56	313.78	7	115.61	1,601.95	19	304.37	81	1,413.19
Gulf Pine		Tarpon Spgs		820	820	1	32,400	1.02	330.48	61.56	6	19.44	311.04	19	59.10	81	271.38
[illegible]		[illegible]		1,015	3,045	3	99,360	1.14	1,132.70	188.78	8	79.40	1,053.21	17	179.05	83	953.65

Winter Garden	Winter Garden	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Winter Haven	Winter Haven	796	13,532	17	555,120	1.01	5,606.71	1,048.82	6	333.07	5,273.64	19	1,001.99	81	4,604.72
Total			446,347	581	19,817,955		$196,801.63	$37,541.86		$10,785.92	$186,015.71		$36,636.09		$160,165.54
Average Weighted Haul:															
Average per car			768		34,110		338.73	64.62		18.56			63.06		275.67
Averaged per 100 lbs. (cents)							99.3	18.9		5.4			18.5		80.8

[fol. 2644]

Philadelphia, Pa. 253 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Alturas Fla.	Lake Wales Fla.	811	811	1	33,480	$1.02	$341.50	$63.61	6	$20.09	$321.41	19	$61.07	81	$280.43
Alva	La Belle	910	4,550	5	162,000	1.09	1,765.80	405.28	8	129.60	1,636.20	18	294.52	82	1,471.28
Arcadia	Arcadia	855	1,710	2	64,800	1.05	680.40	123.12	7	45.36	635.04	19	120.66	81	559.74
Auburndale	Auburndale	790	11,850	15	500,850	1.01	5,058.59	951.66	6	300.51	4,758.08	19	904.04	81	4,154.55
Avon Park	Avon Park	829	829	1	33,480	1.04	348.19	63.61	7	23.44	324.75	19	61.70	81	286.49
Bartow	Bartow	809	4,854	6	203,220	1.02	2,072.84	414.34	6	121.93	1,950.91	19	370.67	81	1,702.17
Bradenton	Bradenton	842	842	1	32,400	1.04	336.96	61.56	7	22.68	314.28	19	59.71	81	277.25
Brooksville	Brooksville	762	11,430	15	497,880	.99	4,929.01	945.95	5	248.94	4,680.07	20	936.01	80	3,993.00
Citra	Citra	687	13,053	19	637,470	.93	5,928.47	1,211.21	4	254.99	5,673.48	21	1,191.43	79	4,737.04
Clearwater	Clearwater	819	16,380	20	654,300	1.02	6,673.86	1,243.17	6	392.58	6,281.28	19	1,193.44	81	5,480.42
Clermont	Clermont	778	3,890	5	171,990	1.00	1,719.90	326.77	5	86.00	1,633.90	20	326.78	80	1,393.12
Dade City	Dade City	768	768	1	33,480	.99	331.45	63.62	5	16.74	314.71	20	62.94	80	268.51
Elfers	New Port Richey	833	4,165	5	165,150	1.04	1,717.56	313.78	7	115.61	1,601.95	19	304.37	81	1,413.19
Gulf Pine	Tarpon Spgs	820	820	1	32,400	1.02	330.48	61.56	6	19.44	311.04	19	59.10	81	271.38
Homestead	Homestead	1,015	3,045	3	99,360	1.14	1,132.70	188.78	8	79.49	1,053.21	17	179.05	83	953.65
Island Grove	Citra	685	4,110	6	200,160	.93	1,861.49	380.31	4	80.06	1,781.43	21	374.10	79	1,487.39
Knights	Plant City	789	789	1	32,400	1.01	327.24	61.56	6	19.44	307.80	19	58.48	81	268.76
Lake Jem	Tavares	758	29,562	39	1,284,975	.99	12,721.25	2,441.44	6	770.99	11,950.26	20	2,390.05	80	10,331.20
Lake Wales	Lake Wales	810	8,100	10	329,400	1.02	3,359.88	649.33	6	197.64	3,162.24	19	600.83	81	2,759.05
Leesburg	Leesburg	740	2,960	4	133,020	.96	1,276.99	252.73	5	66.51	1,210.48	20	242.10	80	1,034.89
Manatee	Manatee	842	3,368	4	135,090	1.04	1,404.94	256.66	7	94.56	1,310.38	19	248.97	81	1,155.97
Manavista	Manatee	842	12,630	15	486,000	1.04	5,054.40	923.40	7	340.20	4,714.20	19	895.70	81	4,158.70
Montverde	Ferndale	769	16,149	21	702,765	.99	6,957.37	1,335.26	5	351.38	6,605.99	20	1,321.20	80	5,636.17
Nocatee	Nocatee	858	4,290	5	166,320	1.05	1,746.36	316.00	7	116.42	1,629.94	19	309.69	81	1,436.67
Ocala	Ocala	706	706	1	32,400	.95	307.80	61.56	5	16.20	291.60	20	58.32	80	249.48
Ocoee	Ocoee	780	780	1	33,480	.99	331.45	64.45	5	16.74	314.71	20	62.94	80	268.51
Orlando	Orlando	774	42,570	55	1,840,500	.99	18,220.95	3,496.93	5	920.25	17,300.70	20	3,460.14	80	14,760.81
Oviedo	Oviedo	769	57,675	75	2,527,695	.99	25,024.18	4,802.52	5	1,263.85	23,760.33	20	4,752.07	80	20,272.11
Palmetto	Palmetto	841	65,598	78	2,594,475	1.04	26,982.54	4,929.26	7	1,816.18	25,166.41	19	4,781.62	81	22,200.92
Parrish	Parrish	830	19,090	23	779,490	1.04	8,106.70	1,408.96	7	545.64	7,561.06	19	1,436.60	81	6,670.10
Plymouth	Apopka	766	71,238	93	3,114,630	.99	30,834.84	5,917.68	5	1,557.32	29,277.52	20	5,855.50	80	24,979.34
Sarasota	Sarasota	854	854	1	32,400	1.05	340.20	61.56	7	22.68	317.52	19	60.33	81	279.87
Sebring	Sebring	838	838	1	33,480	1.04	348.19	64.00	7	23.44	324.75	19	61.70	81	286.49
So. Lake Weir	Wildwood	729	5,103	7	234,900	.96	2,255.04	469.00	5	117.45	2,137.59	20	427.52	80	1,827.52
Sulphur Springs	Tampa	801	5,607	7	227,880	1.02	2,324.38	462.17	6	136.73	2,187.65	19	415.65	81	1,908.73
Tampa	Tampa	810	5,670	7	226,800	1.02	2,313.36	430.92	6	136.08	2,177.28	19	413.68	81	1,899.68
Tavares	Tavares	751	41,305	55	1,834,425	.98	17,977.37	3,485.96	6	1,100.66	16,876.71	20	3,375.34	80	14,602.03
Terra Ceia	Palmetto	842	10,946	13	434,880	1.04	4,522.75	826.27	7	304.42	4,218.33	19	801.48	81	3,721.27
Tildenville	Winter Garden	781	185,097	237	8,515,080	1.01	86,002.31	16,179.32	5	4,257.54	81,744.77	19	15,531.51	81	70,470.80
Valrico	Tampa	803	8,030	10	332,640	1.02	3,392.93	632.03	6	199.58	3,193.35	19	606.74	81	2,786.19
Welcome Jct	Mulberry	804	804	1	33,480	1.02	341.50	62.62	6	20.09	321.41	19	61.07	81	280.43
Wellsgrove Spur	Ft. Ogden	861	1,722	2	65,880	1.05	691.74	125.17	7	46.12	645.62	19	122.67	81	569.07
West Frostproof	Avon Park	818	4,908	6	194,400	1.04	2,021.76	392.03	7	136.08	1,885.68	19	358.28	81	1,663.48
Winter Garden	Winter Garden	780	133,350	171	5,581,080	.99	55,256.65	10,585.24	5	2,790.74	52,465.91	20	10,493.18	80	44,763.47
Winter Haven	Winter Haven	796	39,800	50	1,707,390	1.01	17,244.64	3,273.28	6	1,024.43	16,220.21	19	3,081.84	81	14,162.80
Total			862,676	1,099	37,169,775		$372,918.91	$70,785.64		$20,366.77	$352,552.14		$68,784.79		$304,134.12
Average Weighted Haul:															
Average per car			785		33,821		339.33	64.41		18.53			62.59		276.74
Average per 100 lbs. (cents)							1.003	19.0		5.5			18.5		81.8

Pittsburgh, Pa., 416 Miles from Richmond, Va.

Seaboard Air Line Origins B. & O. Delivery via Richmond, Va.

Knights Fla.	Plant City Fla.	789	789	1	33,480	$1.08	$361.58	$123.87	6	$20.09	$341.49	26	$88.79	74	$272.79
Average per 100 lbs. (cents)								37.0		6.0			26.5		81.5

Pittsburgh, Pa., 416 Miles from Richmond, Va.

Seaboard Air Line Origins P. R. R. Delivery via Richmond, Va.

Origin	Basing Point	Southern Miles	Southern Total car miles	No. of cars	Weight	Rate	Charges	Revenue north of Richmond as settled	Arbitrary revenue Per 100 lb. cents	Arbitrary revenue Per car	Net revenue	Divisions under I. C. C. Decision North %	North Revenue	South %	South Revenue
Alturas....Fla.	Lake Wales....Fla.	811	1,622	2	64,800	$1.08	$699.84	$239.76	6	$38.88	$660.96	25	$165.24	75	$534.60
Alva	La Belle	910	2,730	3	104,445	1.16	1,211.56	386.44	8	83.56	1,128.00	24	270.72	76	940.84
Apopka	Apopka	769	4,614	6	195,930	1.05	2,057.27	724.94	6	117.56	1,939.71	26	504.32	74	1,552.95
Arcadia	Arcadia	855	11,115	13	428,580	1.11	4,757.24	1,585.76	7	300.01	4,457.23	25	1,114.31	75	3,642.93
Auburndale	Auburndale	790	7,110	9	296,100	1.06	3,138.66	1,096.12	6	177.66	2,961.00	26	769.86	74	2,368.80
Avon Park	Avon Park	829	3,316	4	130,680	1.09	1,424.41	483.51	6	78.41	1,346.00	25	336.50	75	1,087.91
Bartow	Bartow	809	7,281	9	291,600	1.08	3,149.28	1,078.92	6	174.96	2,974.32	25	743.58	75	2,405.70
Brandon	Tampa	805	805	1	32,400	1.08	349.92	119.88	6	19.44	330.48	25	82.62	75	267.30
Brooksville	Brooksville	762	3,810	5	166,275	1.04	1,729.26	615.22	5	83.14	1,646.12	26	427.99	74	1,301.27
Clearwater	Clearwater	819	13,923	17	569,880	1.09	6,211.69	2,108.54	6	341.93	5,869.76	25	1,467.44	75	4,744.25
Clermont	Clermont	778	778	1	32,400	1.06	343.44	119.88	6	19.44	324.00	26	84.24	74	259.20
Elfers	New Port Richey	833	1,666	2	64,800	1.10	712.80	239.76	6	38.88	673.92	25	168.48	75	544.32
Ft. Ogden	Ft. Ogden	865	865	1	32,400	1.12	362.88	119.88	7	22.68	340.20	25	85.05	75	277.83
Gulf Pine	Tarpon Spgs	820	3,280	4	129,600	1.09	1,412.64	479.52	6	77.76	1,334.88	25	333.72	75	1,078.92
Jacksonville	Jacksonville	621	2,484	4	144,720	.91	1,316.95	535.48	..	.....	1,316.95	28	368.75	72	948.20
Knights	Plant City	789	4,734	6	197,640	1.08	2,134.51	731.25	6	118.58	2,015.93	26	524.14	74	1,610.37
Lake Jem	Tavares	758	3,032	4	132,885	1.05	1,395.29	491.68	5	66.44	1,328.85	26	345.50	74	1,049.79
Lakemont	Sebring	834	8,340	10	342,630	1.10	3,768.93	1,267.45	6	205.58	3,563.35	25	890.84	75	2,878.09
Lake Wales	Lake Wales	810	8,910	11	367,200	1.08	3,965.76	1,527.07	6	220.32	3,745.44	25	936.36	75	3,029.40
Largo	St. Petersburg	822	12,330	15	494,640	1.10	5,441.04	1,830.17	6	296.78	5,144.26	25	1,286.07	75	4,154.97
Leesburg	Leesburg	740	9,620	13	451,845	1.03	4,654.00	1,672.97	5	225.92	4,428.08	27	1,195.58	73	3,458.42
Manavista	Manatee	842	15,156	18	587,520	1.10	6,462.72	2,173.83	6	352.51	6,110.21	25	1,527.55	75	4,935.17
Montverde	Ferndale	769	5,383	7	232,245	1.06	2,461.80	859.32	6	139.35	2,322.45	26	603.84	74	1,857.96
Nocatee	Nocatee	858	2,574	3	104,580	1.12	1,171.30	386.93	7	73.21	1,098.09	25	274.52	75	896.78
Ocala	Ocala	706	706	1	33,480	1.00	334.80	123.88	4	13.39	321.41	27	86.78	73	248.02
Ocoee	Ocoee	780	5,460	7	232,245	1.06	2,461.80	859.32	6	139.35	2,322.45	26	603.84	74	1,857.96
Orlando	Orlando	774	21,672	28	929,880	1.06	9,856.73	2,440.58	6	557.93	9,298.80	26	2,417.69	74	7,439.04
Palmetto	Palmetto	841	1,682	2	66,960	1.10	736.56	247.76	6	40.18	696.38	25	174.10	75	562.46
Plant City	Plant City	793	793	1	33,480	1.08	361.58	123.87	6	20.09	341.49	26	88.79	74	272.79
Plymouth	Apopka	766	31,406	41	1,372,680	1.05	14,413.14	5,078.93	6	823.61	13,589.53	26	3,533.28	74	10,879.86
South Lake Weir	Wildwood	729	6,561	9	299,160	1.03	3,081.35	1,106.89	5	149.58	2,931.77	27	791.58	73	2,289.77
Sulphur Springs	Tampa	801	801	1	32,400	1.08	349.92	119.88	6	19.44	330.48	25	82.62	75	267.30
Summerfield	Wildwood	721	17,304	24	785,160	1.03	8,087.15	2,973.70	5	392.58	7,694.57	27	2,077.53	73	6,009.62
Tavares	Tavares	751	751	1	32,400	1.03	333.72	119.88	5	16.20	317.52	26	82.56	74	251.16
Tildenville	Winter Garden	781	59,356	76	2,608,830	1.06	27,653.60	9,652.78	6	1,565.30	26,088.30	26	6,782.96	74	20,870.64
Valrico	Tampa	803	2,409	3	102,600	1.08	1,108.08	379.62	6	61.56	1,046.52	25	261.63	75	846.45
Welcome Jct	Mulberry	804	804	1	34,560	1.08	373.25	127.87	6	20.74	352.51	25	88.13	75	285.12
West Frostproof	Avon Park	818	3,272	4	137,160	1.09	1,495.04	507.48	6	82.30	1,412.74	25	353.19	75	1,141.85
Winter Garden	Winter Garden	780	138,840	178	5,818,905	1.06	61,680.39	21,534.79	6	3,491.34	58,189.05	26	15,129.15	74	46,551.24
Winter Haven	Winter Haven	796	20,696	26	872,550	1.08	9,423.54	3,228.29	6	523.53	8,900.01	26	2,314.00	74	7,109.54
Totals			447,991	571	18,988,245		$202,083.84	$69,499.90		$11,190.12	$190,893.72		$49,375.05		$152,708.79
Average Weighted Haul:															
Average per car			785		33,254		353.91	121.72		19.60			86.47		267.44
Average per 100 lbs. (cents)							1.064	36.6		5.9			2.6		80.4

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Altoona, Pa., 358 Miles from Richmond, Va. Page 19

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Geneva....Fla.	Chuluota....Fla.	775	2,325	3	97,200	$1.04	$1,010.88	$359.64	6	$58.32	$952.56	24	$228.61	76	782.27
Average Weighted Haul:															
Average per car			775		32,400		336.96	119.88		19.44			76.20		260.76
Average per 100 lbs. (cents)							104.0	37.0		6.0			23.5		80.5

Baltimore, Md., 165 Miles from Richmond, Va.

Florida East Coast Origins B. & O. Delivery via Richmond, Va.

Lake Helen....Fla.	Lake Helen....Fla.	747	1,494	2	64,800	$.94	$609.12	$113.40	6	$38.88	$570.24	19	$108.35	81	$500.77
Average Weighted Haul:															

Lake Helen....Fla.	Lake Helen.....Fla.	747	1,494	2	64,800	$.94	$609.12	$113.40	6	$38.88	$570.24	19	$108.35	81	$500.77
Average Weighted Haul:															
Average per car.....			747		32,400		304.56	56.70		19.44			54.18		250.38
Average per 100 lbs. (cents).....							94.0	17.5		6.0			16.7		77.3

Baltimore, Md., 165 Miles from Richmond, Va.

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Cocoa.....Fla.	Melbourne.....Fla.	794	7,146	9	304,020	$.99	$3,009.80	$532.02	7	$212.81	$2,796.99	19	$531.43	81	$2,478.37
Hastings.....	Hastings.....	675	675	1	35,820	.88	315.22	62.69	4	14.33	300.89	20	60.18	80	255.04
Jayjay.....	Titusville.....	772	29,336	38	1,269,630	.96	12,188.45	2,221.91	6	761.78	11,426.67	19	2,171.07	81	10,017.38
Lake Helen.....	Lake Helen.....	747	747	1	32,400	.94	304.56	56.70	6	19.44	285.12	19	54.17	81	250.39
Totals.....			37,904	49	1,641,870		$15,818.03	$2,873.32		$1,008.36	$14,809.67		$2,816.85		$13,001.18
Average Weighted Haul:															
Average per car.....			774		33,508		322.82	58.64		20.58			57.49		265.33
Average per 100 lbs. (cents).....							96.3	17.5		6.1			17.2		79.1

Buffalo, N. Y., 550 Miles from Richmond, Va.

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Cocoa.....Fla.	Melbourne.....Fla.	794	794	1	32,400	$1.16	$375.84	$123.12	6	$19.44	$356.40	30	$106.92	70	$268.92
Ft. Pierce.....	Ft. Pierce.....	863	10,356	12	402,300	1.19	4,787.37	1,528.72	7	281.61	4,505.76	29	1,306.67	71	3,480.70
Jayjay.....	Titusville.....	772	1,544	2	65,700	1.13	742.41	249.66	5	32.85	709.56	30	212.87	70	529.54
Lake Helen.....	Lake Helen.....	747	2,241	3	97,200	1.12	1,088.64	369.37	6	58.32	1,030.32	30	309.10	70	779.54
Totals.....			14,935	18	597,600		$6,994.26	$2,270.87		$392.22	$6,602.04		$1,935.56		$5,058.70
Average Weighted Haul:															
Average per car.....			830		33,200		388.57	126.16		21.79			107.53		281.04
Average per 100 lbs. (cents).....							117.0	38.0		6.6			32.4		84.6

[fol. 2647]

Jersey City, N. J., 336 Miles from Richmond, Va.

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Cocoa.....Fla.	Melbourne.....Fla.	794	17,468	22	739,620	$1.07	$7,913.93	$1,664.18	7	$517.73	$7,396.20	23	$1,701.13	77	$6,212.80
Goulds.....	Goulds.....1,007		1,007	1	33,480	1.19	398.41	75.33	9	30.13	368.28	21	77.34	79	321.07
Jayjay.....	Titusville.....	772	11,580	15	498,150	1.04	5,180.76	1,120.84	6	298.89	4,881.87	23	1,122.83	77	4,057.93
New Smyrna.....	New Smyrna.....	746	746	1	34,560	1.02	352.51	77.76	5	17.28	335.23	24	80.46	76	272.05
Oslo.....	Ft. Pierce.....	853	20,472	24	803,700	1.10	8,840.70	1,808.36	7	562.59	8,278.11	22	1,821.18	78	7,019.52
Wabasso.....	Ft. Pierce.....	841	841	1	36,630	1.10	402.93	82.42	7	25.64	377.29	22	83.00	78	319.93
Wiley Ave.....	Titusville.....	770	770	1	35,010	1.04	364.10	78.77	6	21.01	343.09	23	78.91	77	285.19
Totals.....			52,884	65	2,181,150		$23,453.34	$4,907.66		$1,473.27	$21,980.07		$4,964.85		$18,488.49
Average Weighted Haul:															
Average per car.....			814		33,556		360.82	75.50		22.67			76.38		284.44
Average per 100 lbs. (cents).....							107.5	22.5		6.8			22.8		84.7

New York, N. Y., 346 Miles from Richmond, Va.

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Cocoa.....Fla.	Melbourne.....Fla.	794	649,492	818	27,410,805	$1.07	$293,295.61	$61,675.16	7	$19,187.56	$274,108.05	23	$63,044.85	77	$230,250.76
Dupont.....	Daytona Beach.....	711	2,844	4	131,220	1.00	1,312.20	295.24	4	52.59	1,259.61	24	302.31	76	1,009.89
E. Palatka.....	E. Palatka.....	682	12,958	19	630,810	.97	6,118.86	1,419.33	4	252.32	5,866.54	24	1,407.97	76	4,710.89
Eau Gallie.....	Melbourne.....	811	4,055	5	174,690	1.07	1,869.18	393.05	7	122.28	1,746.90	23	401.79	77	1,467.39
Fellsmere.....	Fellsmere.....	846	5,922	7	246,735	1.11	2,738.76	751.56	9	222.06	2,516.70	22	553.67	78	2,185.09
Ft. Pierce.....	Ft. Pierce.....	863	25,027	29	954,900	1.10	10,503.90	2,148.50	7	668.43	9,835.47	22	2,163.80	78	8,340.10
Gifford.....	Ft. Pierce.....	847	96,558	114	3,869,595	1.10	42,565.55	8,706.55	7	2,708.72	39,856.83	22	8,768.50	78	33,797.05
Geneva.....	Chuluota.....	775	9,300	12	397,440	1.05	4,173.12	894.24	6	238.46	3,934.66	23	904.97	77	3,268.15
Jayjay.....	Titusville.....	772	220,792	286	9,544,860	1.04	99,266.54	21,474.73	6	5,726.92	93,539.62	23	21,514.11	77	77,752.43
Lake Helen.....	Lake Helen.....	747	9,711	13	423,360	1.02	4,318.27	952.56	5	211.68	4,106.59	24	985.58	76	3,332.69
Mims.....	Mims.....	776	108,640	144	4,831,785	1.04	50,250.56	10,871.81	6	2,899.07	47,351.49	23	10,890.84	77	39,359.72
New Smyrna.....	New Smyrna.....	746	83,552	112	3,823,605	1.02	39,000.77	8,603.21	5	1,911.80	37,088.97	24	8,901.35	76	30,099.42
Oakhill.....	Titusville.....	758	126,586	167	5,598,360	1.04	58,222.94	12,596.31	6	3,359.02	54,863.92	24	13,167.34	76	45,055.60
Oslo.....	Ft. Pierce.....	853	12,795	15	495,315	1.10	5,448.47	1,114.42	7	346.72	5,101.75	22	1,122.39	78	4,326.08
Sebastian.....	Ft. Pierce.....	836	836	1	33,480	1.10	368.28	75.33	7	23.44	344.84	22	75.86	78	292.42
Vero Beach.....	Ft. Pierce.....	849	17,829	21	72,900	1.10	8,019.00	1,640.26	7	510.30	7,508.70	22	1,651.91	78	6,367.09
Wabasso.....	Ft. Pierce.....	841	163,995	195	6,660,180	1.10	71,261.98	14,985.21	7	4,662.13	68,599.85	22	15,091.97	78	58,170.01
White City.....	Ft. Pierce.....	868	30,380	35	1,179,720	1.10	12,976.92	2,654.35	7	825.80	12,151.12	22	2,673.25	78	10,303.67
Wylie Ave.....	Titusville.....	770	102,515	145	4,899,555	1.04	50,955.37	11,033.80	6	2,939.73	48,015.64	23	11,043.60	77	39,911.77
Totals.....			1,683,787	2,142	71,379,315		$764,666.28	$162,286.32		$46,869.03	$717,797.25		$164,666.08		$600,000.22

Ft. Pierce	Ft. Pierce	863	25,027	29	954,900	1.10	10,505.90	2,148.50	7	668.43	9,835.47	22	2,163.80	78	8,340.10
Gifford	Ft. Pierce	847	96,558	114	3,869,595	1.10	42,565.55	8,706.55	7	2,708.72	39,856.83	22	8,768.50	78	33,797.05
Geneva	Chuluota	775	9,300	12	397,440	1.05	4,173.12	894.24	6	238.46	3,934.66	23	904.97	77	3,268.15
Jayjay	Titusville	772	220,792	286	9,544,860	1.04	99,266.54	21,474.73	6	5,726.92	93,539.62	23	21,514.11	77	77,752.43
Lake Helen	Lake Helen	747	9,711	13	423,360	1.02	4,318.27	952.56	5	211.68	4,106.59	24	985.58	76	3,332.69
Mims	Mims	776	108,640	144	4,831,785	1.04	50,250.56	10,871.81	6	2,899.07	47,351.49	23	10,890.84	77	39,359.72
New Smyrna	New Smyrna	746	83,552	112	3,823,605	1.02	39,000.77	8,603.21	5	1,911.80	37,088.97	24	8,901.35	76	30,099.42
Oakhill	Titusville	758	126,586	167	5,598,360	1.04	58,222.94	12,596.31	6	3,359.02	54,863.92	24	13,167.34	76	45,055.60
Oslo	Ft. Pierce	853	12,795	15	495,315	1.10	5,448.47	1,114.42	7	346.72	5,101.75	22	1,122.39	78	4,326.08
Sebastian	Ft. Pierce	836	836	1	33,480	1.10	368.28	75.33	7	23.44	344.84	22	75.86	78	292.42
Vero Beach	Ft. Pierce	849	17,829	21	72,900	1.10	8,019.00	1,640.26	7	510.30	7,508.70	22	1,651.91	78	6,367.09
Wabasso	Ft. Pierce	841	163,995	195	6,660,180	1.10	73,261.98	14,985.21	7	4,662.13	68,599.85	22	15,091.97	78	58,170.01
White City	Ft. Pierce	868	30,380	35	1,179,720	1.10	12,976.92	2,654.35	7	825.80	12,151.12	22	2,673.25	78	10,303.67
Wylie Ave	Titusville	770	102,515	145	4,899,555	1.04	50,955.37	11,033.80	6	2,939.73	48,015.64	23	11,043.60	77	39,911.77
Totals			1,683,787	2,142	71,379,315		$764,666.28	$162,286.32		$46,869.03	$717,797.25		$164,666.06		$600,000.22
Average Weighted Haul:															
Average per car			786		33,324		356.99	75.76		21.88			76.87		280.11
Average per 100 lbs. (cents)							107.1	22.7		6.6			23.1		84.0

Philadelphia, Pa., 253 Miles from Richmond, Va.

Florida East Coast Origins B. & O. Delivery via Richmond, Va.

Ft. Pierce	Fla. Ft. Pierce	Fla. 863	5,178	6	198,720	$1.05	$2,086.56	$376.92	7	$139.10	$1,947.46	19	$370.02	81	$1,716.54
Geneva	Chuluota	775	775	1	33,480	1.01	338.15	62.94	6	20.09	318.06	20	63.61	80	274.54
Lake Helen	Lake Helen	747	2,988	4	130,680	.98	1,280.66	235.33	6	78.41	1,202.25	20	240.45	80	1,040.21
New Smyrna	New Smyrna	746	1,492	2	65,880	.98	645.62	125.17	6	39.53	606.09	20	121.22	80	524.40
Totals			10,433	13	428,760		$4,350.99	$800.36		$277.13	$4,073.86		$795.30		$3,555.69
Average Weighted Haul:															
Average per car			803		32,982		334.69	61.57		21.32			61.18		273.51
Average per 100 lbs. (cents)							101.5	18.7		6.5			18.5		83.0

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Philadelphia, Pa., 253 Miles from Richmond, Va.

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Cocoa	Fla. Melbourne	Fla. 794	19,850	25	837,540	$1.02	$8,542.91	$1,591.38	6	$502.52	$8,040.39	19	$1,527.67	81	$7,015.24
Ft. Pierce	Ft. Pierce	863	863	1	32,400	1.05	340.20	61.56	7	22.68	317.52	19	60.33	81	279.87
Geneva	Chuluota	775	1,550	2	67,860	1.01	685.39	128.94	6	40.72	644.67	20	128.93	80	556.46
Homestead	Homestead	1,015	20,300	20	659,880	1.14	7,522.63	1,253.76	8	527.90	6,994.73	17	1,189.10	83	6,333.53
Jayjay	Titusville	772	54,040	70	2,343,420	.99	23,199.86	4,452.49	5	1,171.71	22,028.15	20	4,405.63	80	18,794.23
Lake Helen	Lake Helen	747	747	1	32,400	.98	317.52	89.10	6	19.44	298.08	20	59.62	80	257.90
Mims	Mims	776	24,832	32	1,054,260	.99	10,437.17	2,003.14	5	527.13	9,910.04	20	1,982.01	80	8,455.16
Oak Hill	Titusville	758	40,932	54	1,791,990	.99	17,740.70	3,404.74	5	896.00	16,844.70	20	3,368.94	80	14,371.76
Shiloh	Titusville	760	47,120	62	2,237,805	.99	22,154.27	4,251.83	5	1,118.90	21,035.37	20	4,207.07	80	17,947.20
Vero Beach	Ft. Pierce	849	849	1	32,400	1.05	340.20	61.56	7	22.68	317.52	19	60.33	81	279.87
Wabasso	Ft. Pierce	841	3,364	4	132,075	1.05	1,386.79	250.94	7	92.45	1,294.34	19	245.92	81	1,140.87
Totals			214,447	272	9,222,030		$92,667.64	$17,549.44		$4,942.13	$87,725.51		$17,235.55		$75,432.09
Average Weighted Haul:															
Average per car			788		33,905		340.69	64.52		18.17			63.37		277.32
Average per 100 lbs. (cents)							100.5	19.0		5.4			18.7		81.8

Pittsburgh, Pa., 416 Miles from Richmond, Va.

Florida East Coast Origins P. R. R. Delivery via Richmond, Va.

Cocoa	Fla. Melbourne	Fla. 794	3,176	4	137,745	$1.09	$1,501.42	$509.63	6	$82.65	$1,418.77	26	$368.88	74	$1,132.54
Geneva	Chuluota	775	2,325	3	98,100	1.06	1,039.86	362.97	6	58.86	981.00	26	255.06	74	784.80
Homestead	Homestead	1,015	9,135	9	295,920	1.21	3,580.63	1,094.90	9	266.32	3,314.31	23	762.29	77	2,818.34
Lake Helen	Lake Helen	747	5,229	7	228,960	1.03	2,358.29	847.14	5	114.48	2,243.81	26	583.39	74	1,774.90
Mims	Mims	776	776	1	32,400	1.06	343.44	119.87	6	19.44	324.00	26	84.24	74	259.20
New Smyrna	New Smyrna	746	746	1	32,400	1.03	333.72	119.88	5	16.20	317.52	26	82.56	74	251.16
White City	Ft. Pierce	868	1,736	2	70,875	1.12	793.80	262.24	7	49.61	744.19	25	186.05	75	607.75
Wylie Ave	Titusville	770	6,930	9	293,760	1.06	3,113.86	1,086.92	6	176.26	2,937.60	26	763.78	74	2,350.08
Totals			30,053	36	1,190,160		$13,065.02	$4,403.55		$783.82	$12,281.20		$3,086.25		$9,978.77
Average Weighted Haul:															
Average per car			835		33,060		362.92	122.32		21.77			85.73		277.19
Average per 100 lbs. (cents)							109.8	37.0		6.6			25.9		83.8

[fol. 2649]

EXHIBIT No. 2—Continued

Summary of Averages

Destinations	Delivering road	Haul North of Richmond	Weighted Haul South of Richmond	Load	Charge		Revenue North of Richmond as Settled		Arbitrary Revenue		Divisions under I. C. C. Decision			
											North		South	
				Per car	Per car	Per 100 lbs.	Per car	Per 100 lbs., cents	Per 100 lbs., cents	Per car	Per car	Per 100 lbs., cents	Per car	Per 100 lbs., cents
A. C. L. Origins:														
Altoona	P. R. R.	358	799	32,913	$345.39	$1.049	$121.31	36.9	6.3	$20.68	$77.66	23.6	$267.73	81.3
Baltimore	B. & O.	165	773	32,949	314.15	.953	57.89	17.6	5.6	18.39	55.69	16.9	258.46	78.4
Baltimore	P. R. R.	165	791	33,318	323.20	.97	58.54	17.6	5.9	19.70	56.45	16.9	266.75	80.1
Buffalo	P. R. R.	550	834	33,486	392.77	1.173	127.25	38.0	6.3	20.96	109.41	32.7	283.36	84.6
Jersey City	P. R. R.	336	796	32,788	345.76	1.055	74.07	22.6	6.1	20.12	75.18	22.9	270.58	82.6
New York	P. R. R.	346	785	33,304	348.16	1.045	75.14	22.6	5.9	19.73	76.07	22.8	272.08	81.7
Philadelphia	B. & O.	253	767	33,155	326.69	.985	62.79	18.9	5.5	18.38	60.43	18.2	266.26	80.3
Philadelphia	P. R. R.	253	778	33,437	332.74	.995	64.48	19.3	5.6	18.58	61.67	18.4	271.07	81.1
Pittsburgh	B. & O.	416	774	33,120	351.07	1.06	122.54	37.0	6.0	19.87	86.11	26.0	264.96	80.0
Pittsburgh	P. R. R.	416	783	33,162	352.80	1.064	122.53	36.9	5.7	18.81	86.06	26.0	266.75	80.0
S. A. L. Origins:														
Altoona	P. R. R.	358	765	33,177	338.46	1.02	122.76	37.0	5.3	17.65	77.73	23.4	260.73	78.6
Baltimore	B. & O.	165	802	33,746	329.48	.976	55.25	17.6	5.9	19.92	57.88	17.2	271.60	80.4
Baltimore	P. R. R.	165	792	33,144	321.26	.969	58.01	17.5	5.8	19.29	56.36	17.0	264.90	79.9
Buffalo	P. R. R.	550	803	33,329	380.50	1.142	126.65	38.0	5.7	18.95	106.93	32.1	273.57	82.1
Jersey City	P. R. R.	336	798	34,355	362.75	1.056	77.95	22.7	5.9	20.38	78.64	22.9	284.11	82.7
New York	P. R. R.	346	788	33,437	349.53	1.045	75.29	22.5	5.8	19.34	75.94	22.7	273.59	81.8
Philadelphia	B. & O.	253	768	34,110	338.73	.993	64.62	18.9	5.4	18.56	63.06	18.5	275.67	80.8
Philadelphia	P. R. R.	253	785	33,821	339.33	1.003	64.41	19.0	5.5	18.53	62.59	18.5	276.74	81.8
Pittsburgh	B. & O.	416	789	33,480	361.58	1.08	123.87	37.0	6.0	20.09	88.79	26.5	272.79	81.5
Pittsburgh	P. R. R.	416	785	33,254	353.91	1.064	121.72	36.6	5.9	19.60	86.47	26.0	267.44	80.4
F. E. C. Origins:														
Altoona	P. R. R.	358	775	32,400	336.96	1.04	119.88	37.0	6.0	19.44	76.20	23.5	260.76	80.5
Baltimore	B. & O.	165	747	32,400	304.56	.94	56.70	17.5	6.0	19.44	54.18	16.7	250.38	77.3
Baltimore	P. R. R.	165	774	33,508	322.82	.963	58.64	17.5	6.1	20.58	57.49	17.2	265.33	79.0
Buffalo	P. R. R.	550	830	33,200	388.57	1.17	126.16	38.0	6.6	21.79	107.53	32.4	281.04	84.6
Jersey City	P. R. R.	336	814	33,556	360.82	1.075	75.50	22.5	6.8	22.67	76.38	22.8	284.44	84.7
New York	P. R. R.	346	786	33,324	356.99	1.071	75.76	22.7	6.6	21.88	76.87	23.1	280.11	84.0
Philadelphia	B. & O.	253	803	32,982	334.69	1.015	61.57	18.7	6.5	21.32	61.18	18.5	273.51	83.0
Philadelphia	P. R. R.	253	788	33,905	340.69	1.005	64.52	19.0	5.4	18.17	63.37	18.7	277.32	81.8
Pittsburgh	P. R. R.	416	835	33,060	362.92	1.098	122.32	37.0	6.6	21.77	85.73	25.9	277.19	83.8

[fol. 2650]

Summary

Destinations	Delivering road	# Cars	Weight (Pounds)	Charges	Revenue as settled north of Richmond	Arbitrary Revenue	Net Revenue	Revenue under I. C. C. Decision	
								North	South
A. C. L. Origins:									
Altoona	P. R. R.	28	921,555	$9,671.00	$3,396.70	$578.95	$9,092.05	$2,174.61	$7,496.39
Baltimore	B. & O.	467	15,387,165	146,705.96	27,033.88	8,586.35	138,119.61	26,005.81	120,700.15
Baltimore	P. R. R.	608	20,257,327	196,507.17	35,589.72	11,976.10	184,531.07	34,320.77	162,186.40
Buffalo	P. R. R.	192	6,429,330	75,411.50	24,431.75	4,023.48	71,388.02	21,006.65	54,404.85
Jersey City	P. R. R.	248	8,131,320	85,749.00	18,368.44	4,989.76	80,759.24	18,645.70	67,103.30
New York	P. R. R.	4,849	161,490,530	1,688,218.46	364,367.41	95,667.41	1,592,551.05	368,885.89	1,319,332.57
Philadelphia	B. & O.	1,226	40,648,581	400,519.64	76,980.31	22,532.31	377,987.33	74,084.26	326,435.38
Philadelphia	P. R. R.	1,240	41,462,415	412,591.59	79,960.09	23,036.42	389,555.17	76,467.19	336,124.40
Pittsburgh	B. & O.	1	33,120	351.07	122.54	19.87	331.20	86.11	264.96
Pittsburgh	P. R. R.	693	22,981,158	244,492.79	84,911.85	13,037.62	231,455.17	59,638.20	184,854.59
Total		9,552	317,742,501	$3,260,218.18	$715,162.69	$184,448.27	$3,075,769.91	$681,315.19	$2,578,902.99
S. A. L. Origins:									
Altoona	P. R. R.	22	729,900	$7,446.21	$2,700.68	$388.39	$7,057.82	$1,710.11	$5,736.10
Baltimore	B. & O.	157	5,298,165	51,728.32	9,302.35	3,126.96	48,601.36	9,087.30	42,641.02
Baltimore	P. R. R.	229	7,590,060	73,568.57	13,285.39	4,417.87	69,150.70	12,906.90	60,661.67
Buffalo	P. R. R.	149	4,966,020	56,694.41	18,870.91	2,823.52	53,870.89	15,933.08	40,761.33
Jersey City	P. R. R.	201	6,905,273	72,913.35	15,667.13	4,096.60	68,816.75	15,806.48	57,106.87
New York	P. R. R.	3,531	118,066,905	1,234,177.86	265,847.61	68,276.26	1,165,901.60	268,146.62	966,031.24
[illegible]	B. & O.	[illegible]	19,817,955	[illegible]	37,541.86	10,785.92	186,015.71	36,636.09	160,165.54

Buffalo	P. R. R.	149	4,966,020	56,694.41	18,870.91	2,823.52	53,870.89	15,933.08	40,761.33
Jersey City	P. R. R.	201	6,905,273	72,913.35	15,667.13	4,096.60	68,816.75	15,806.48	57,106.87
New York	P. R. R.	3,531	118,066,905	1,234,177.86	265,847.61	68,276.26	1,165,901.60	268,146.62	966,031.24
Philadelphia	B. & O.	581	19,817,955	196,801.63	37,541.86	10,785.92	186,015.71	36,636.09	160,165.54
Philadelphia	P. R. R.	1,099	37,169,775	372,918.91	70,785.64	20,366.77	352,552.14	68,784.79	304,134.12
Pittsburgh	B. & O.	1	33,480	361.59	123.87	20.09	341.49	88.79	272.79
Pittsburgh	P. R. R.	571	18,988,245	202,083.84	69,499.90	11,190.12	190,893.72	49,375.05	152,708.79
Total		6,541	219,565,778	$2,268,694.68	$503,625.34	$125,492.50	$2,143,202.18	$478,475.21	$1,790,219.47
F. E. C. Origins:									
Altoona	P. R. R.	3	97,200	$1,010.88	$359.64	$58.32	$952.56	$228.61	$782.27
Baltimore	B. & O.	2	64,800	609.12	113.40	38.88	570.24	108.35	500.77
Baltimore	P. R. R.	49	1,641,870	15,818.03	2,873.32	1,008.36	14,809.67	2,816.85	13,001.18
Buffalo	P. R. R.	18	597,600	6,994.26	2,270.87	392.22	6,602.04	1,935.56	5,058.70
Jersey City	P. R. R.	65	2,181,150	23,453.34	4,907.66	1,473.27	21,980.07	4,964.85	18,488.49
New York	P. R. R.	2,142	71,379,315	764,566.28	162,286.32	46,889.03	717,797.25	164,666.06	600,000.22
Philadelphia	B. & O.	13	428,760	4,350.99	800.36	277.13	4,073.86	795.30	3,555.69
Philadelphia	P. R. R.	272	9,222,030	92,667.64	17,549.44	4,942.13	87,725.51	17,235.55	75,432.09
Pittsburgh	P. R. R.	36	1,190,160	13,065.02	4,403.55	783.82	12,281.20	3,086.25	9,978.77
Total		2,600	86,802,885	$922,635.56	$195,564.56	$55,843.16	$866,792.40	$195,837.38	$726,798.18
Recapitulation									
A. C. L. Origins		9,552	317,742,501	$3,260,218.18	$715,162.69	$184,448.27	$3,075,769.91	$681,315.19	$2,578,902.99
S. A. L. Origins		6,541	219,565,778	2,268,694.68	503,625.34	125,492.50	2,143,202.18	478,475.21	1,790,219.47
F. E. C. Origins		2,600	86,802,885	922,635.56	195,564.56	55,843.16	866,792.40	195,837.38	726,798.18
Total		18,693	624,111,164	$6,451,548.42	$1,414,352.59	$365,783.93	$6,085,764.49	$1,355,627.78	$5,095,920.64
Grand Recapitulation									
Altoona	P. R. R.	53	1,748,655	$18,128.09	$6,457.02	$1,025.66	$17,102.43	$4,113.33	$14,014.76
Baltimore	B. & O.	626	20,750,130	199,043.40	36,449.63	11,752.19	187,291.21	35,201.46	163,841.94
Baltimore	P. R. R.	886	29,489,257	285,893.77	51,748.43	17,402.33	268,491.44	50,044.52	235,849.25
Buffalo	P. R. R.	359	11,992,950	139,100.17	45,673.53	7,239.22	131,860.95	38,875.29	100,224.88
Jersey City	P. R. R.	514	17,217,743	182,115.69	38,943.23	10,559.63	171,556.06	39,417.03	142,698.66
New York	P. R. R.	10,522	350,936,750	3,687,062.60	792,501.34	210,812.70	3,476,249.90	801,698.57	2,885,364.03
Philadelphia	B. & O.	1,820	60,895,296	601,672.26	115,322.53	33,595.36	568,076.90	111,515.65	490,156.61
Philadelphia	P. R. R.	2,611	87,854,220	878,178.14	168,295.17	48,345.32	829,832.82	162,487.53	715,690.61
Pittsburgh	B. & O.	2	66,600	712.65	246.41	39.96	672.69	174.90	537.75
Pittsburgh	P. R. R.	1,300	43,159,563	459,641.65	158,815.30	25,011.56	434,630.09	112,099.50	347,542.15
		18,693	624,111,164	$6,451,548.42	$1,414,352.59	$365,783.93	$6,085,764.49	$1,355,627.78	$5,095,920.64

[fol. 2651]

EXHIBIT No. 3

Statement Showing Estimated Expenses per Car for Handling Citrus Fruit for Same Distance as from Richmond to Points Shown via P. R. R. and B. & O. Compared with Combined Estimated Expenses per Car via R., F. & P., P. R. R. and B. & O.

	Altoona, Pa.		Baltimore, Md.		Buffalo, N. Y.		New York, N. Y.		Philadelphia, Pa.	
	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 358 Empty haul 319 Total 677	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 165 Empty haul 147 Total 312	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 550 Empty haul 490 Total 1040	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 346 Empty haul 308 Total 654	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 253 Empty haul 225 Total 478
Ratio loaded to empty miles		89%		89%		89%		89%		89%
		Operating Expenses per Total Car Mile Basis		Operating Expenses		Operating Expenses		Operating Expenses		Operating Expenses
		Cents Per Car		Per Car		Per Car		Per Car		Per Car
Expense loaded haul		10.95445 39.22		18.07		60.25		37.90		27.71
Expense empty haul		34.91		16.08		53.62		33.73		24.66
Total operating expenses		74.13		34.15		113.87		71.63		52.37
Rental refrigerator car loaded and empty at 2¢		13.54		6.24		20.80		13.08		9.56
Taxes		0.90963 6.16		2.84		9.46		5.95		4.35

Pittsburgh	B. & O.	2	66,600	712.65	246.41	89.96	672.69	174.96	337.78
Pittsburgh	P. R. R.	1,300	43,159,563	459,641.65	158,815.30	25,011.56	434,630.09	112,099.50	347,542.15
		18,693	624,111,164	$6,451,548.42	$1,414,352.59	$365,783.93	$6,085,764.49	$1,355,627.78	$5,095,920.64

[fol. 2651]

EXHIBIT No. 3

Statement Showing Estimated Expenses per Car for Handling Citrus Fruit for Same Distance as from Richmond to Points Shown via P. R. R. and B. & O. Compared with Combined Estimated Expenses per Car via R., F. & P., P. R. R. and B. & O.

	Altoona, Pa.		Baltimore, Md.		Buffalo, N. Y.		New York, N. Y.		Philadelphia, Pa.	
	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 358 Empty haul 319 Total 677	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 165 Empty haul 147 Total 312	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 550 Empty haul 490 Total 1040	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 346 Empty haul 308 Total 654	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 253 Empty haul 225 Total 478
Ratio loaded to empty miles		89% Operating Expenses per Total Car Mile Basis		89% Operating Expenses		89% Operating Expenses		89% Operating Expenses		89% Operating Expenses
		Cents / Per Car		Per Car		Per Car		Per Car		Per Car
Expense loaded haul		10.95445 / 39.22		18.07		60.25		37.90		27.71
Expense empty haul		34.91		16.08		53.62		33.73		24.66
Total operating expenses		74.13		34.15		113.87		71.63		52.37
Rental refrigerator car loaded and empty at 2¢		13.54		6.24		20.80		13.08		9.56
Taxes		0.90963 / 6.16		2.84		9.46		5.95		4.35
Total estimated cost		93.83		43.23		144.13		90.66		66.28
Less estimated transportation cost attributable to ice in bunkers 5 ton at 1.65 mills per ton per mile of loaded haul		2.95		1.36		4.54		2.85		2.09
Net Cost per Car excluding Refrigeration	$86.75	$90.88	$37.76	$41.87	$135.48	$139.59	$83.69	$87.81	$60.08	$64.19

	Pittsburgh, Pa.		Baltimore, Md.		Philadelphia, Pa.		Pittsburgh, Pa.	
	R., F. & P. plus P. R. R. (Ex. No. 9, Operating Expenses per Car	P. R. R. Delivery Miles Weighted haul 416 Empty haul 370 Total 786	R., F. & P. plus B. & O. (Ex. No. 9, Operating Expenses per Car	B. & O. Delivery Miles Weighted haul 165 Empty haul 140 Total 305	R., F. & P. plus B. & O. (Ex. No. 9, Operating Expenses per Car	B. & O. Delivery Miles Weighted haul 253 Empty haul 215 Total 468	R., F. & P. plus B. & O. (Ex. No. 9, Operating Expenses per Car	B. & O. Delivery Miles Weighted haul 416 Empty haul 354 Total 770
Ratio loaded to empty miles		89% Operating Expenses		85% Operating Expenses per Total Car Mile Basis		85% Operating Expenses		85% Operating Expenses
		Per Car		Cents / Per Car		Per Car		Per Car
Expense loaded haul		45.57		10.56372 / 17.43		26.73		43.95
Expense empty haul		40.56		14.82		22.72		37.36
Total Operating Expenses		86.13		32.25		49.45		81.31
Rental refrigerator car loaded and empty at 2¢		15.72		6.10		9.36		15.40
Taxes		7.15		0.70003 / 2.14		3.27		5.39
Total Estimated Cost		109.00		40.49		62.08		102.10
Less estimated transportation cost attributed to ice in bunkers 5 tons at 1.65 mills per ton per mile of loaded haul		3.43		1.36		2.09		3.43
Net Cost per Car excluding Refrigeration	$101.45	$105.57	$36.85	$39.13	$57.73	$59.99	$96.35	$98.67

[fol. 2652]

EXHIBIT No. 4

North

Comparison of Gross Revenue per Car and per 100 Pounds, with Estimated Expense per Car and per 100 Pounds, Based Upon Reports to the Commission for the Year 1929 and on All Shipments of Citrus Fruit from Florida Origins on the A. C. L. and S. A. L., Moving via Richmond to Destinations on the B. & O. and P. R. R. During the Season November, 1928, to June, 1929 (Doss Exhibit No. 9)

A. C. L. Origins		Estimated Expense North of Richmond		Weighted Average Revenue North of Richmond, Based on Divisions Prescribed by the I. C. C.		Total Revenue North under I. C. C. Decision	Difference Between Estimated Expense and Revenue	Total Cars	Total Difference Between Estimated Expense and Revenue	
Destination	Delivering Road	Per Car	Per 100 Pounds	Per Car	Per 100 Pounds					
		1		2		3	4	5	6 = 4 5	
			(Cents)		(Cents)					
Altoona	P. R. R.	$86.75	26.4	$77.66	23.6	$2,174.61	$9.09	28	$254.52	Deficiency
Baltimore	B. & O.	36.85	11.2	55.69	16.9	26,005.81	18.84	467	8,798.28	Surplus
Baltimore	P. R. R.	37.76	11.3	56.45	16.9	34,320.77	18.69	608	11,363.52	Surplus
Buffalo	P. R. R.	135.48	40.5	109.41	32.7	21,006.65	26.07	192	5,005.44	Deficiency
New York	P. R. R.	83.69	25.1	76.07	22.8	368,885.89	7.62	4,849	36,949.38	Deficiency
Philadelphia	B. & O.	57.73	17.4	60.43	18.2	74,084.26	2.70	1,226	3,310.20	Surplus
Philadelphia	P. R. R.	60.08	18.0	61.67	18.4	76,467.19	1.59	1,240	1,971.60	Surplus
Pittsburgh	B. & O.	96.35	29.1	86.11	26.0	86.11	10.24	1	10.24	Deficiency
Pittsburgh	P. R. R.	101.45	30.6	86.06	26.0	59,638.20	15.39	693	10,665.27	Deficiency
Totals						$662,669.49		9,304	$27,441.25	Deficiency
S. A. L. Origins:										
			(Cents)		(Cents)					
Altoona	P. R. R.	$86.75	26.1	$77.73	23.4	$1,710.11	$9.02	22	$198.44	Deficiency
Baltimore	B. & O.	36.85	10.9	57.88	17.2	9,087.30	21.03	157	3,301.71	Surplus
Baltimore	P. R. R.	37.76	11.4	56.36	17.0	12,906.90	18.60	229	4,259.40	Surplus
Buffalo	P. R. R.	135.48	40.6	106.93	32.8	15,933.08	28.55	149	4,253.95	Deficiency
New York	P. R. R.	83.69	25.0	75.94	22.7	268,146.62	7.75	3,531	27,365.25	Deficiency
Philadelphia	B. & O.	57.73	16.9	63.06	18.5	36,636.09	5.33	581	3,096.73	Surplus
Philadelphia	P. R. R.	60.08	17.8	62.59	18.5	68,784.79	2.51	1,099	2,758.49	Surplus
Pittsburgh	B. & O.	96.35	28.8	88.79	26.5	88.79	7.56	1	7.56	Deficiency
Pittsburgh	P. R. R.	101.45	30.5	86.47	26.0	49,375.05	14.98	571	8,553.58	Deficiency
Totals						$462,668.73		6,340	$26,962.45	Deficiency
				Summary						
A. C. L. Origins						$662,669.49		9,304	$27,441.25	Deficiency
S. A. L. Origins						462,668.73		6,340	26,962.45	Deficiency
Total						$1,125,338.22		15,644	$54,403.70	Deficiency
				Recapitulation						
Altoona						$3,884.72		50	$452.96	Deficiency
Baltimore						82,320.78		1,461	27,722.91	Surplus
Buffalo						36,939.73		341	9,259.39	Deficiency
New York						637,032.51		8,380	64,314.63	Deficiency
Philadelphia						255,972.33		4,146	11,137.02	Surplus
Pittsburgh						109,188.15		1,266	19,236.65	Deficiency
Total						$1,125,338.22		15,644	$54,403.70	Deficiency

[fol. 2653]

EXHIBIT No. 5

Statement Showing Estimated Expenses Per Car and Per 100 Lbs. for Handling Citrus Fruit from All Florida Origin Points to Richmond, Va., Based on Weighted Hauls to Destinations Shown Below

A. C. L. to New York, N. Y., P. R. R. Delivery Miles		To Altoona, Pa., P. R. R. Delivery Miles		To Baltimore, Md., P. R. R. Delivery Miles		To Buffalo, N. Y., P. R. R. Delivery Miles		To Philadelphia, Pa., P. R. R. Delivery Miles		To Pittsburgh, Pa., P. R. R. Delivery Miles		To Baltimore, Md., B. & O. Delivery Miles		To Philadelphia, Pa., B. & O. Delivery Miles		To Pittsburgh, Pa., B. & O. Delivery Miles	
Weighted hauls	785	Weighted hauls	799	Weighted hauls	791	Weighted hauls	834	Weighted hauls	778	Weighted hauls	783	Weighted hauls	773	Weighted hauls	767	Weighted hauls	774
Empty	707	Empty	719	Empty	712	Empty	751	Empty	700	Empty	705	Empty	696	Empty	690	Empty	697
Total	1,492	Total	1,518	Total	1,503	Total	1,585	Total	1,478	Total	1,488	Total	1,469	Total	1,457	Total	1,471

	A. C. L. to New York, N. Y., P. R. R. Delivery Miles	To Altoona, Pa., P. R. R. Delivery Miles	To Baltimore, Md., P. R. R. Delivery Miles	To Buffalo, N. Y., P. R. R. Delivery Miles	To Philadelphia, Pa., P. R. R. Delivery Miles	To Pittsburgh, Pa., P. R. R. Delivery Miles	To Baltimore, Md., B. & O. Delivery Miles	To Philadelphia, Pa., B. & O. Delivery Miles	To Pittsburgh, Pa., B. & O. Delivery Miles
	Weighted hauls 785	Weighted hauls 799	Weighted hauls 701	Weighted hauls 834	Weighted hauls 778	Weighted hauls 783	Weighted hauls 773	Weighted hauls 767	Weighted hauls 774
	Empty 707	Empty 719	Empty 712	Empty 751	Empty 700	Empty 705	Empty 696	Empty 690	Empty 697
	Total 1,492	Total 1,518	Total 1,503	Total 1,585	Total 1,478	Total 1,488	Total 1,469	Total 1,457	Total 1,471
Ratio loaded to empty miles 90%									
	Operating Expenses per Total Car Mile Basis								
	Cents	Per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car
Expense loaded haul	8.60880	$67.58	$67.78	$68.10	$71.80	$66.98	$67.41	$66.55	$66.03	$66.63
Expense empty haul		60.82	61.90	61.29	64.62	60.28	60.67	59.90	59.43	59.97
Total Operating Expense		128.40	130.68	129.39	136.42	127.26	128.08	126.45	125.46	126.60
Rental refrigerator car loaded and empty at 2 cents		29.84	30.36	30.06	31.70	29.56	29.76	29.38	29.14	29.42
Taxes	1.00541	15.00	15.26	15.11	15.94	14.86	14.96	14.77	14.65	14.79
5 3/4% on Investment	2.62114	39.11	39.79	39.40	41.55	38.74	39.00	38.50	38.19	38.56
Total Estimated Cost		212.35	216.09	213.96	225.61	210.42	211.80	209.10	207.44	209.37
Less estimated transportation cost attributable to ice in bunkers 5 tons at 1.65 miles per ton per mile of loaded haul		6.48	6.59	6.53	6.88	6.42	6.46	6.37	6.33	6.39
Net Cost per Car Excluding Refrigeration		205.87	209.50	207.43	218.73	204.00	205.34	202.73	201.11	202.98
Average load per car A. C. L. (lb.)		33,304	32,913	33,818	33,486	33,437	33,162	32,949	33,155	33,120
Estimated cost per 100 lbs. A. C. L. (Cts.)		61.8	63.7	62.3	65.3	61.0	61.9	61.5	60.7	61.3

	S. A. L. to Baltimore, Md., B. & O. Delivery Miles	To Philadelphia, Pa., B. & O. Delivery Miles	To Pittsburgh, Pa., B. & O. Delivery Miles	To Altoona, Pa., P. R. R. Delivery Miles	To Baltimore, Md., P. R. R. Delivery Miles	To Buffalo, N. Y., P. R. R. Delivery Miles	To New York, N. Y., P. R. R. Delivery Miles	To Philadelphia, Pa., P. R. R. Delivery Miles	To Pittsburgh, Pa., P. R. R. Delivery Miles
	Weighted hauls 802	Weighted hauls 768	Weighted hauls 789	Weighted hauls 765	Weighted hauls 792	Weighted hauls 803	Weighted hauls 788	Weighted hauls 785	Weighted hauls 785
	Empty 727	Empty 691	Empty 710	Empty 689	Empty 713	Empty 723	Empty 709	Empty 707	Empty 707
	Total 1,524	Total 1,459	Total 1,499	Total 1,454	Total 1,505	Total 1,497	Total 1,526	Total 1,492	Total 1,492
Ratio loaded to empty miles 90%									
	Operating Expenses per Total Car Mile Basis								
	Cents	Per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Exepnses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car	Operating Expenses per Car
Expense loaded haul	9.27566	$74.39	$71.24	$73.18	$70.96	$73.46	$74.48	$73.09	$72.81	$72.81
Expense empty haul		66.95	64.12	65.86	63.86	66.11	67.03	65.78	65.53	65.53
Total Operating Expense		141.34	135.36	139.04	134.82	139.57	141.51	138.87	138.34	138.34
Rental refrigerator car loaded and empty at 2 cents		30.48	29.18	29.98	29.08	30.10	30.52	29.94	29.84	29.84
Taxes	0.80920	12.33	11.81	12.13	11.77	12.18	12.35	12.11	12.07	12.07
5¾% on Investment	3.66300	55.82	53.44	54.91	53.26	55.13	55.90	54.84	54.65	54.65
Total estimated cost		239.97	229.79	236.06	228.93	236.98	240.28	235.76	234.90	234.90
Less estimated transportation cost attributable to ice in bunkers 5 tons at 1.65 mills per ton per mile of loaded haul		6.62	6.34	6.51	6.31	6.53	6.62	6.50	6.48	6.48
Net cost per car excluding refrigeration		233.35	223.45	229.55	222.62	230.45	233.66	229.26	228.42	228.42
Average load per car S. A. L. (pounds)		33,746	34,110	33,480	33,177	33,144	33,329	33,437	33,821	33,254
Estimated cost per 100 lbs. S. A. L. (Cts.)		69.1	65.5	68.6	67.1	69.5	70.1	68.6	67.5	68.7

[fol. 2654]

EXHIBIT No. 6

South

Comparison of Gross Revenue Per Car and Per 100 Pounds South of Richmond Under I. C. C. Decision with Estimated Expense Per Car and Per 100 Pounds Based Upon Carriers' Reports to the Commission for the Year 1929 Applied to All Shipments of Citrus Fruit from A. C. L. Florida and S. A. L. Origins to Destinations Shown, Moving During the Season November, 1928, to June, 1929 (Doss Exhibit No. 9).

A. C. L. Origins	Delivering line	Estimated expenses south of Richmond: Per car	Estimated expenses south of Richmond: Per 100 lbs. (Cents)	Weighted haul miles	Weighted average revenue south of Richmond based upon decisions prescribed by the I. C. C.: Per car	Weighted average revenue south of Richmond based upon decisions prescribed by the I. C. C.: Per 100 lbs. (Cents)	Total revenue south I. C. C. decision	Difference between estimated expense and revenue per car	Total cars	Total difference between estimated expenses and revenue (surplus)
Altoona	P. R. R.	$209.50	63.7	799	$267.73	81.3	$7,496.39	$58.23	28	$1,630.44
Baltimore	B. & O.	207.73	61.5	773	258.46	78.4	120,700.15	55.73	467	26,025.91
Baltimore	P. R. R.	207.43	62.3	791	266.75	80.1	162,186.40	59.32	608	36,066.56
Buffalo	P. R. R.	218.73	65.3	834	283.36	84.6	54,404.85	64.63	192	12,408.96
New York	P. R. R.	205.87	61.8	785	272.08	81.7	1,319,332.57	66.21	4,849	321,052.29
Philadelphia	B. & O.	201.11	60.7	767	266.26	80.3	326,435.38	65.15	1,226	79,873.90
Philadelphia	P. R. R.	204.00	61.0	778	271.07	81.1	336,124.40	67.07	1,240	83,166.80
Pittsburgh	B. & O.	202.98	61.3	774	264.96	80.0	264.96	61.98	1	61.98
Pittsburgh	P. R. R.	205.34	61.9	783	266.75	80.4	184,854.59	61.41	693	42,557.13
Total							$2,511,799.69		9,304	$602,843.97
S. A. L. Origins										
Altoona	P. R. R.	$222.62	67.1	765	$260.73	78.6	$5,736.10	$38.11	22	$838.42
Baltimore	B. & O.	233.35	69.1	802	271.60	80.4	42,641.02	38.25	157	6,005.25
Baltimore	P. R. R.	230.45	69.5	792	264.90	79.9	60,661.67	34.45	229	7,889.05
Buffalo	P. R. R.	233.66	70.1	803	273.57	82.1	40,761.33	39.91	149	5,946.59
New York	P. R. R.	229.26	68.6	788	273.59	81.8	966,031.24	44.32	3,531	156,529.23
Philadelphia	B. & O.	223.45	65.5	768	275.67	80.8	160,165.54	52.22	581	30,339.82
Philadelphia	P. R. R.	228.42	67.5	785	276.74	81.8	304,134.12	48.32	1,099	53,103.68
Pittsburgh	B. & O.	229.55	68.6	789	272.79	81.5	272.79	43.24	1	43.24
Pittsburgh	P. R. R.	228.42	68.7	785	267.44	80.4	152,708.79	39.02	571	22,280.42
Total							$1,733,112.60		6,340	$282,975.70
Summary										
A. C. L. Origins							$2,511,799.69		9,304	$602,843.97
S. A. L. Origins							1,733,112.60		6,340	282,975.70
Total							$4,244,912.29		15,644	$885,819.67
Recapitulation										
Altoona							$13,232.49		50	$2,468.86
Baltimore							386,189.24		1,461	75,986.77
Buffalo							95,166.18		341	18,355.55
New York							2,285,363.81		8,380	477,581.52
Philadelphia							1,126,859.44		4,146	246,484.20
Pittsburgh							338,101.13		1,266	64,942.77
Total							$4,244,912.29		15,644	$885,819.67

[fol. 2655]

EXHIBIT No. 7

Witness: ——

Statement Showing Total Amount Available from Prescribed Divisions for Return on Investment Over Estimated Operating Expenses, Taxes and Car Rentals

Destinations	Delivering Road	5¾% Return on Investment per Car	Total Cars	Total 5¾% return	Excess Revenue over 5¾% return	Total Amount Available for return on Investment 5¾% plus Excess Revenue
A. C. L. Origins:						
Altoona, Pa.	P. R. R.	$39.79	28	$1,114.12	$1,630.44	$
Baltimore, Md.	B. & O.	38.50	467	17,979.50	26,025.91	
Baltimore, Md.	P. R. R.	39.40	608	23,955.20	36,066.56	
Buffalo, N. Y.	P. R. R.	41.55	192	7,977.60	12,408.96	
New York, N. Y.	P. R. R.	39.11	4,849	189,644.39	321,052.29	
Philadelphia, Pa.	B. & O.	38.19	1,226	46,820.94	79,873.90	

[fol. 2655]

EXHIBIT No. 7

Witness: ——

Statement Showing Total Amount Available from Prescribed Divisions for Return on Investment Over Estimated Operating Expenses, Taxes and Car Rentals

Destinations	Delivering Road	5¾% Return on Investment per Car	Total Cars	Total 5¾% return	Excess Revenue over 5¾% return	Total Amount Available for return on Investment 5¾% plus Excess Revenue
A. C. L. Origins:						
Altoona, Pa.	P. R. R.	$39.79	28	$1,114.12	$1,630.44	$
Baltimore, Md.	B. & O.	38.50	467	17,979.50	26,025.91	
Baltimore, Md.	P. R. R.	39.40	608	23,955.20	36,066.56	
Buffalo, N. Y.	P. R. R.	41.55	192	7,977.60	12,408.96	
New York, N. Y.	P. R. R.	39.11	4,849	189,644.39	321,052.29	
Philadelphia, Pa.	B. & O.	38.19	1,226	46,820.94	79,873.90	
Philadelphia, Pa.	P. R. R.	38.74	1,240	48,037.60	83,166.80	
Pittsburgh, Pa.	B. & O.	38.56	1	38.56	61.98	
Pittsburgh, Pa.	P. R. R.	39.00	693	27,027.00	42,557.13	
Totals			9,304	$362,594.91	$602,843.97	$965,438.88
Percent				5¾%		15.31%
S. A. L. Origins:						
Altoona, Pa.	P. R. R.	$53.26	22	$1,171.72	$838.42	
Baltimore, Md.	B. & O.	55.82	157	8,763.74	6,005.25	
Baltimore, Md.	P. R. R.	55.13	229	12,624.77	7,889.05	
Buffalo, N. Y.	P. R. R.	55.90	149	8,329.10	5,946.59	
New York, N. Y.	P. R. R.	54.84	3,531	193,640.04	156,529.23	
Philadelphia, Pa.	B. & O.	53.44	581	31,048.64	30,339.82	
Philadelphia, Pa.	P. R. R.	54.65	1,099	60,060.35	53,103.68	
Pittsburgh, Pa.	B. & O.	54.91	1	54.91	43.24	
Pittsburgh, Pa.	P. R. R.	54.65	571	31,205.15	22,280.42	
Totals			6,340	$346,898.42	$282,975.70	$629,874.12
Percent				5¾%		10.44%
Grand totals			15,644	$709,493.33	$885,819.67	$1,595,313.00
Percent				5¾%		12.93%
Amount available for investment per car						$101.98

[fol. 2656]

EXHIBIT No. 8

Witness: ——

I. C. C. Docket 24069

Tons of Revenue Freight—Calendar Year 1929

Richmond, Fredericksburg & Potomac R. R.

		Originating on Respondent's Line		Received from Connecting Carriers				
No.	Commodity Group	Terminating on Respondent's Line (1)	Delivered to Connecting Carriers (2)	Terminating on Respondent's Line (3)	Delivered to Connecting Carriers (4)	Total Tons Carried (5)	Percent Column 4 is of Column 5 (6) (4)—(5)	Percent Column 1 is of Column 5 (7) (1)—(5)
110	Oranges and Grapefruit	.....	.....	318	527,673	527,991	99.94	00.00
111	Lemons, Limes and Citrus Fruits, N. O. S.	.....	.....	139	1,951	2,090	93.35	00.00
	Sub-Totals (110–111)	.....	.....	457	529,624	530,081	99.91	00.00
800	Total Products of Agriculture	3,690	14,581	66,109	1,275,457	1,359,837	93.79	00.27
810	Total Animals and Products	124	6,350	11,174	22,623	40,271	56.18	00.31
820	Total Products of Mines	126,649	17,022	185,331	137,858	466,860	29.53	27.13
830	Total Products of Forests	14,134	181,497	12,291	1,379,766	1,587,688	86.90	00.89
840	Total Manufactures and Miscellaneous	19,610	76,271	367,942	681,820	1,145,643	59.51	01.71
850	Grand Total, Carload Traffic	164,207	295,721	642,847	3,497,524	4,600,299	76.03	03.57
710	All L. C. L. Freight	9,351	35,025	43,874	85,746	173,996	49.28	05.37
860	Grand Total, Carload and L. C. L. Traffic	173,558	330,746	686,721	3,583,270	4,774,295	75.25	03.64

Source—Freight Commodity Statistics Statement No. 30100, Interstate Commerce Commission.

[fol. 2657]

EXHIBIT No. 9

Statement Showing Estimated Expenses Per Car and Per 100 Pounds for Handling Citrus Fruit from Richmond, Va., via Potomac Yards to Points Shown

	R., F. & P. Delivery To Potomac Yards Miles Loaded 110, Empty 99 Total 209		P. R. R. Delivery To New York Miles Loaded 236, Empty 210 Total 446			P. R. R. Delivery To Altoona, Pa. Miles Loaded 248, Empty 221 Total 469		P. R. R. Delivery To Baltimore, Md. Miles Loaded 55, Empty 49 Total 104		P. R. R. Delivery To Buffalo, N. Y. Miles Loaded 440, Empty 392 Total 832	
Ratio loaded to empty miles	90%		89%			89%		89%		89%	
	Operating Expenses per Total Car Mile Basis		Operating Expenses per Total Car Mile Basis		Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses
	Cents	Per Car	Cents	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car
Expense loaded haul	9.05994	9.97	10.95445	25.85	35.82	27.17	37.14	6.02	15.99	48.20	58.17
Expense empty haul		8.97		23.01	31.98	24.18	33.15	5.36	14.33	42.90	51.87
Total Operating Expenses		18.94		48.86	67.80	51.35	70.29	11.38	30.32	91.10	110.04
Rental refrigerator Car loaded and empty at 2¢		4.18		8.92	13.10	9.38	13.56	2.08	6.26	16.64	20.82
Taxes	0.75851	1.59	0.90963	4.06	5.65	4.27	5.86	.95	2.54	7.57	9.16
Total Estimated Cost		24.71		61.84	86.55	65.00	89.71	14.41	39.12	115.31	140.02
Less estimated transportation cost attributable to ice in bunkers 5 tons at 1.65 mills per ton per mile of loaded haul		.91		1.95	2.86	2.05	2.96	.45	1.36	3.63	4.54
Net Cost Per Car excluding Refrigeration		$23.80		$59.89	$83.69	$62.95	$86.75	$13.96	$37.76	$111.68	$135.48
Average load per car A. C. L. (Pounds)		.....		33,304	.....	32,913	.....	33,318	.....	33,486	.....
Average load per car S. A. L. (Pounds)		.....		33,437	.....	33,177	.....	33,144	.....	33,329	.....
Estimated cost per 100 lbs. A. C. L. origins (Cents)		.....		.....	25.1	.....	26.4	.....	11.3	.....	40.5
Estimated cost per 100 lbs. S. A. L. origins (Cents)		.....		.....	25.0	.....	26.1	.....	11.4	.....	40.6

	P. R. R. Delivery To Philadelphia, Pa. Miles Loaded 143, Empty 127 Total 270		P. R. R. Delivery To Pittsburgh, Pa. Miles Loaded 306, Empty 272 Total 578		B. & O. Delivery To Baltimore, Md. Miles Loaded 55, Empty 47 Total 102			B. & O. Delivery To Philadelphia, Pa. Miles Loaded 143, Empty 122 Total 265		B. & O. Delivery To Pittsburgh, Pa. Miles Loaded 306, Empty 260 Total 566	
Ratio loaded to empty miles	89%		89%		85%			85%		85%	
	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses Per Total Car Miles Basis		Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses
	Per Car	Per Car	Per Car	Per Car	Cents	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car
Expense loaded haul	15.66	25.63	33.52	43.49	10.56372	5.81	15.78	15.11	25.08	32.32	42.29
Expense empty haul	13.94	22.91	29.83	38.80		4.94	13.91	12.84	21.81	27.47	36.44
Total Operating Expenses	29.60	48.54	63.35	82.29		10.75	29.69	27.95	46.89	59.79	78.73
Rental refrigerator car loaded and empty at 2¢	5.40	9.58	11.56	15.74		2.04	6.22	5.30	9.48	11.32	15.50
Taxes	2.46	4.05	5.26	6.85	0.70003	.71	2.30	1.86	3.45	3.96	5.55
Total Estimated Cost	37.46	62.17	80.17	104.88		13.50	38.21	35.11	59.82	75.07	99.78
Less estimated transportation cost attributable to ice in bunkers 5 tons at 1.65 mills per ton per mile of loaded haul	1.18	2.09	2.52	3.43		.45	1.36	1.18	2.09	2.52	3.43
Net Cost Per Car excluding Refrigeration	$36.28	$60.08	$77.65	$101.45		$13.05	$36.85	$33.93	$57.73	$72.55	$96.35
Average load per car, A. C. L. (Pounds)	33,437	.....	33,162	.....		32,949	.....	33,155	.....	33,120	.....
Average load per car, S. A. L. (Pounds)	33,821	.....	33,254	.....		33,746	.....	34,110	.....	33,480	.....
[illegible]	.....	15.0	.....	20.6		.....	11.2	.....	17.4	.....	29.1

	B., F. & P. Delivery To Potomac Yards Miles Loaded 110, Empty 99 Total 209		P. R. R. Delivery To New York Miles Loaded 236, Empty 210 Total 446			P. R. R. Delivery To Altoona, Pa. Miles Loaded 248, Empty 221 Total 469		P. R. R. Delivery To Baltimore, Md. Miles Loaded 55, Empty 49 Total 104		P. R. R. Delivery To Buffalo, N. Y. Miles Loaded 440, Empty 392 Total 832	
Ratio loaded to empty miles	90%		89%			89%		89%		89%	
	Operating Expenses per Total Car Mile Basis		Operating Expenses per Total Car Mile Basis		Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses
	Cents	Per Car	Cents	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car
Expense loaded haul	9.05994	9.97	10.95445	25.85	35.82	27.17	37.14	6.02	15.99	48.20	58.17
Expense empty haul		8.97		23.01	31.98	24.18	33.15	5.36	14.33	42.90	51.87
Total Operating Expenses		18.94		48.86	67.80	51.35	70.29	11.38	30.32	91.10	110.04
Rental refrigerator Car loaded and empty at 2¢		4.18		8.92	13.10	9.38	13.56	2.08	6.26	16.64	20.82
Taxes	0.75851	1.59	0.90963	4.06	5.65	4.27	5.86	.95	2.54	7.57	9.16
Total Estimated Cost		24.71		61.84	86.55	65.00	89.71	14.41	39.12	115.31	140.02
Less estimated transportation cost attributable to ice in bunkers 5 tons at 1.65 mills per ton per mile of loaded haul		.91		1.95	2.86	2.05	2.96	.45	1.36	3.63	4.54
Net Cost Per Car excluding Refrigeration		$23.80		$59.89	$83.69	$62.95	$86.75	$13.96	$37.76	$111.68	$135.48
Average load per car A. C. L. (Pounds)		.....		33,304	.....	32,913	.....	33,318	.....	33,486	.....
Average load per car S. A. L. (Pounds)		.....		33,437	.....	33,177	.....	33,144	.....	33,329	.....
Estimated cost per 100 lbs. A. C. L. origins (Cents)		.....		.....	25.1	.....	26.4	.....	11.3	.....	40.5
Estimated cost per 100 lbs. S. A. L. origins (Cents)		.....		.....	25.0	.....	26.1	.....	11.4	.....	40.6

	P. R. R. Delivery To Philadelphia, Pa. Miles Loaded 143, Empty 127 Total 270		P. R. R. Delivery To Pittsburgh, Pa. Miles Loaded 306, Empty 272 Total 578		B. & O. Delivery To Baltimore, Md. Miles Loaded 55, Empty 47 Total 102			B. & O. Delivery To Philadelphia, Pa. Miles Loaded 143, Empty 122 Total 265		B. & O. Delivery To Pittsburgh, Pa. Miles Loaded 306, Empty 260 Total 566	
Ratio loaded to empty miles	89%		89%		85%			85%		85%	
	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses Per Total Car Miles Basis		Combined Expenses	Operating Expenses	Combined Expenses	Operating Expenses	Combined Expenses
	Per Car	Per Car	Per Car	Per Car	Cents	Per Car	Per Car	Per Car	Per Car	Per Car	Per Car
Expense loaded haul	15.66	25.63	33.52	43.49	10.56372	5.81	15.78	15.11	25.08	32.32	42.29
Expense empty haul	13.94	22.91	29.83	38.80		4.94	13.91	12.84	21.81	27.47	36.44
Total Operating Expenses	29.60	48.54	63.35	82.29		10.75	29.69	27.95	46.89	59.79	78.73
Rental refrigerator car loaded and empty at 2¢	5.40	9.58	11.56	15.74		2.04	6.22	5.30	9.48	11.32	15.50
Taxes	2.46	4.05	5.26	6.85	0.70003	.71	2.30	1.86	3.45	3.96	5.55
Total Estimated Cost	37.46	62.17	80.17	104.88		13.50	38.21	35.11	59.82	75.07	99.78
Less estimated transportation cost attributable to ice in bunkers 5 tons at 1.65 mills per ton per mile of loaded haul	1.18	2.09	2.52	3.43		.45	1.36	1.18	2.09	2.52	3.43
Net Cost Per Car excluding Refrigeration	$36.28	$60.08	$77.65	$101.45		$13.05	$36.85	$33.93	$57.73	$72.55	$96.35
Average load per car, A. C. L. (Pounds)	33,437	.....	33,162	.....		32,949	.....	33,155	.....	33,120	.....
Average load per car, S. A. L. (Pounds)	33,821	.....	33,254	.....		33,746	.....	34,110	.....	33,480	.....
Estimated cost per 100 lbs. A. C. L. origins (Cents)	.....	18.0	.....	30.6		.....	11.2	.....	17.4	.....	29.1
Estimated cost per 100 lbs. S. A. L. origins (Cents)	.....	17.8	.....	30.5		.....	10.9	.....	16.9	.....	28.8

[fols. 2658-2674] REPLY OF SOUTHERN CARRIERS, COMPLAINANTS AND RESPONDENTS, TO SECOND PETITION OF OFFICIAL TERRITORY CARRIERS, DATED APRIL 27, 1934, FOR REHEARING, RECONSIDERATION AND REARGUMENT—Filed May 7, 1934.

Omitted. Printed side page 157 ante.

[fol. 2675] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES.

ORDER OF JULY 3, 1933

The cases in No. 24069 being at issue upon complaint and cross-complaint and answers on file, and having been duly heard and submitted by the parties, and full investigation of the matters and things involved having been had, and the Commission having on the date hereof made and filed a report containing its findings of fact and conclusions thereon, which said report is hereby referred to and made a part hereof; and

It appearing that by order dated January 3, 1931, the Commission entered upon an inquiry and investigation in No. 24160 into the divisions of joint rates on classes and

commodities between points in official territory and point in southern territory, except the divisions involved in No. 24069, and full investigation of the divisions of rates on citrus fruits involved in No. 24160 having been had, and the Commission having on the date hereof made and filed a report containing its findings of fact and conclusions as to said divisions, which said report is hereby referred to and made a part hereof:

It is ordered that complainants, cross-complainants, and defendants in No. 24069 and respondents in No. 24160, according as they participate in the transportation of citrus fruit from points in Florida to points in official territory upon rates prescribed in Florida R. R. Commissioners v. A. & R. R. R. Co., 144 I. C. C. 603, shall receive on and after November 1, 1933, divisions of such rates determined as follows:

(a) The so-called Florida arbitrary contained in said rates shall first be deducted and added to the division of the southern lines, as defined in the findings in said report, determine as hereinafter specified.

(b) On shipments other than those over the Southern Railway via Potomac Yard, Va., the remainder of the rates after deduction of the Florida arbitrary hereinabove referred to shall be divided on two percentages, one of which shall apply to the transportation north of the gateways named in the findings in said report and the other to the [fol. 2676] transportation south of said gateways, the percentage of the southern lines as defined in said findings to be based on the scale of southern factors set forth in the appendix to said report for the short-line distance from point of origin to the gateway through which the shipment moves, and the percentage of the northern lines as defined in said findings to be based on the scale of northern factors set forth in said appendix fractions being disposed of by adding one to the percentage having the larger decimal or if both decimals are equal to the percentage of the northern lines.

(c) On shipments over the Southern Railway via Potomac Yard percentages applicable on shipments between the same points via Richmond, Va., shall be applied except that 3 shall be deducted from the percentage of the northern lines and added to the percentage of the southern lines.

Provided, however, that these findings shall not be applied to divisions on shipments to points in central territory, including Buffalo-Pittsburgh territory, via Virginia gateways over the Chesapeake & Ohio Railway and the Norfolk & Western Railway.

It is further ordered, that said complainants, cross-complainants, and defendants in No 24069 be, and they are hereby, notified and required, on or before December 1, 1933, to adjust divisions in accordance with the method hereinabove prescribed on shipments which moved subsequent to November 22, 1930, from points in Florida to points in trunk-line territory and New England on rates prescribed in Florida R. R. Commissioners v. A. & R. R. R. Co., 144, I. C. C., 603.

It is further ordered that said complainants, cross-complainants, defendants and respondents, according as they participate in the transportation, be, and they are hereby, notified and required to cease and desist, on and after November 1, 1933, and thereafter to abstain from asking, demanding, collecting, or receiving divisions of said joint rates upon other bases than those above prescribed.

And it is further ordered that this order shall continue in force until the further order of the Commission.

By the Commission.

George B. McGinty, Secretary. (Seal.)

Copy.

[fol. 2677] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER REOPENING PROCEEDINGS, ETC.—Oct. 9, 1933.

Upon consideration of a petition filed by defendants in No. 24069 and respondents in No. 24160 in Official territory,

for rehearing and reargument in the above-entitled proceedings:

It is ordered that said proceedings be, and they are hereby, reopened for further consideration of the matters and things involved in the Commission's report of July 3, 1933, in said proceedings upon the record as made prior to date of submission thereof and data referred to in stipulations of counsel.

And it is further ordered that the effective date of the order of July 3, 1933, in said proceedings be, and it is hereby postponed until the further order of the Commission.

By the Commission.

—— ——, Secretary.

[fol. 2678] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER ON FURTHER CONSIDERATION—Jan. 8, 1934

The Commission having reopened the above-entitled proceedings for further consideration and having, on the date hereof, made and filed a report containing its findings of fact and conclusions on further consideration, which said report together with the original report, 194 I. C. C. 729, is hereby referred to and made a part hereof:

It is ordered that the first, second, and third ordering paragraphs of the order of July 3, 1933, in said proceedings be, and they are hereby, amended to read as follows:

It is ordered that complainants, cross-complainants, and defendants in No. 24069 and respondents in No. 24160, according as they participate in the transportation of citrus fruit from points in Florida to points in Official territory upon rates prescribed in Florida R. R. Commissioners v. A. & R. R. Co., 144 I. C. C. 603, shall receive on and after May 1, 1934, divisions of such rates determined as follows:

(a) The so-called Florida arbitrary contained in said rates shall first be deducted and added to the division of the southern lines, as defined in the findings in said reports, determined as hereinafter specified.

(b) On shipments other than those over the Southern Railway via Potomac Yard, Va., the remainder of the rates after deduction of the Florida arbitrary hereinabove referred to shall be divided on two percentages, one of which shall apply to the transportation north of the gateways named in the findings in said reports herein and the other to the transportation south of said gateways, the percentage of the southern lines as defined in said findings to be [fol. 2679] based on the scale of southern factors set forth in the appendix to the original report for the short-line distance from point of origin to the gateway through which the shipment moves, and the percentage of the northern lines as defined in said findings to be based on the scale of northern factors set forth in said appendix, fractions being disposed of by adding one to the percentage having the larger decimal or, if both decimals are equal, to the percentage of the northern lines.

(c) On shipments over the Southern Railway via Potomac Yard percentages applicable on shipments between the same points via Richmond, Va., shall be applied except that 3 shall be deducted from the percentage of the northern lines and added to the percentage of the southern lines.

Provided, however, that these findings shall not be applied to divisions on shipments to points in central territory other than in West Virginia, or to points in Buffalo-Pittsburgh territory, via Virginia gateways over the Ches-

apeake & Ohio Railway and the Norfolk & Western Railway.

It is further ordered that said complainants, cross-complainants, and defendants in No. 24069 be, and they are hereby, notified and required, on or before June 1, 1934, to adjust divisions in accordance with the method hereinabove prescribed on shipments which moved subsequent to November 22, 1930, from points in Florida to points in trunk-line territory and New England, on rates prescribed in Florida R. R. Commissioners v. A. & R. R. R. Co., 144 I. C. C. 603.

It is further ordered that said complainants, cross-complainants, defendants and respondents, according as they participate in the transportation, be, and they are hereby, notified and required to cease and desist, on and after May 1, 1934, and thereafter to abstain, from asking, demanding, collecting, or receiving divisions of said joint rates upon other bases than those above prescribed.

By the Commission.

George B. McGinty, Secretary. (Seal.)

[fol. 2680] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER POSTPONING EFFECTIVE DATES—April 30, 1934

Good cause appearing therefor it is ordered that the effective dates of May 1, 1934, and June 1, 1934, in the order

of July 3, 1933, in the above-entitled proceedings, as amended, be, and they are hereby, postponed until June 1, 1934, and July 2, 1934, respectively.

By the Commission.

——— ———, Secretary.

[fol. 2681] Certificate to attached paper omitted in printing.

[fol. 2682] Sub. 832

BEFORE INTERSTATE COMMERCE COMMISSION

William E. Lee, Balthasar H. Meyer, Clyde B. Aitchison, Frank McManamy, Claude R. Porter, Patrick J. Farrell, Hugh M. Tate, Charles D. Mahaffie, Carroll Miller, Commissioners.

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

MINUTE ENTRY—May 14, 1934

Second petition for rehearing, reconsideration and reargument in behalf of defendants and cross-complainants in No. 24069, and in behalf of respondents within Official Territory in No. 24160, denied; Commissioners Aitchison, Farrell, Mahaffie and Miller voting to grant.

[fol. 2683] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER DENYING SECOND PETITION FOR REHEARING, ETC.—
May 14, 1934

Upon consideration of the record in the above-entitled proceeding and of the second petition for rehearing, reconsideration and reargument in behalf of defendants and cross-complainants in No. 24069 and respondents in Official territory in No. 24160:

It is ordered that said petition be, and it is hereby, denied.

By the Commission.

George B. McGinty, Secretary. (Seal.)

[fol. 2684] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER AMENDING ORDER OF JAN. 8, 1934—June 1, 1934

Good cause appearing therefor, it is ordered that the third ordering paragraph of the order of January 8, 1934, in the above-entitled proceedings, as amended, be, and it is hereby, further amended to read as follows:

It is further ordered that said complainants, cross-complainants, and defendants in No. 24069 be, and they are hereby, notified and required, on or before December 1, 1934, to adjust divisions in accordance with the method hereinabove prescribed on shipments which moved subsequent to November 22, 1930, from points in Florida to points in trunk-line territory and New England on rates prescribed in Florida R. R. Commissioners v. A. & R. R. R. Co., 144 I. C. C. 603.

And it is further ordered that in all other respects said order of January 8, 1934, as amended, shall continue in effect until the further order of the Commission.

By the Commission.

—— ——, Secretary.

[fol. 2685] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER AMENDING ORDER OF JAN. 8, 1934—Nov. 30, 1934

Good cause appearing therefor, it is ordered that the third ordering paragraph of the order of January 8, 1934, in the above-entitled proceedings, as amended be, and it is hereby, further amended to read as follows:

It is further ordered that said complainants, cross-complainants, and defendants in No. 24069 be, and they are hereby, notified and required, on or before December 10, 1934, to adjust divisions in accordance with the method hereinabove prescribed on shipments which moved subsequent to November 22, 1930, from points in Florida to points in trunk-line territory and New England on rates prescribed in Florida R. R. Commissioners v. A. & R. R. R. Co., 144 I. C. C. 603.

And it is further ordered that in all other respects said order of January 8, 1934, as amended, shall continue in effect until the further order of the Commission.

By the Commission. ——, Secretary.

[fol. 2686] BEFORE INTERSTATE COMMERCE COMMISSION

No. 24069

ATLANTIC COAST LINE RAILROAD COMPANY et al.

v.

ARCADE AND ATTICA RAILROAD CORPORATION et al.

Cross-Complaint

ARCADE AND ATTICA RAILROAD CORPORATION et al.

v.

ATLANTIC COAST LINE RAILROAD COMPANY et al.

No. 24160

IN THE MATTER OF DIVISIONS OF JOINT INTERTERRITORIAL RATES BETWEEN OFFICIAL AND SOUTHERN TERRITORIES

ORDER AMENDING ORDER OF JAN. 8, 1934—Dec. 8, 1934

Good cause appearing therefor, it is ordered that the third ordering paragraph of the order of January 8, 1934, in the above-entitled proceedings, as amended, be, and it is hereby, further amended to read as follows:

It is further ordered that said complainants, cross-complainants, and defendants in No. 24069 be, and they are hereby, notified and required, on or before March 11, 1935, to adjust divisions in accordance with the method hereinabove prescribed on shipments which moved subsequent to November 22, 1930, from points in Florida to points in trunk-line territory and New England on rates prescribed in Florida R. R. Commissioners v. A. & R. R. R. Co., 144 I. C. C. 603.

And it is further ordered that in all other respects said order of January 8, 1934, as amended, shall continue in effect until the further order of the Commission.

By the Commission.

—— ——, Secretary.

Endorsed on cover: File No. 39866. D. C., U. S., E. Virginia. Term No. 312. The Baltimore and Ohio Railroad Company, The Pennsylvania Railroad Company, The Richmond, Fredericksburg and Potomac Railroad Company, et al., Appellants, vs. The United States of America, Interstate Commerce Commission, Atlantic Coast Line Railroad Company, et al. Filed July 31, 1935. Term No. 312, O. T., 1935.

[fol. 1634] IN THE SUPREME COURT OF THE UNITED STATES,
OCTOBER TERM, 1935

No. 312

BALTIMORE & OHIO RAILROAD COMPANY, ET AL., Appellants,

v.

UNITED STATES, INTERSTATE COMMERCE COMMISSION, ET AL., Appellees

To the Clerk:

It is hereby stipulated by and between counsel for the parties in the above-entitled case, that on page 1363 of the transcript of record, line 12, an error has occurred in including the word "not" in such line, and that as shown by the official stenographer's minutes, the line should read "and does count empty cars the same as loaded cars." You are hereby authorized and requested to make the above change in this record.

Stanley Reed, Solicitor General, for United States.
E. M. Reidy, for Interstate Commerce Commission.
Frank W. Gwathmey, for Atlantic Coast Line R. Co., et al., Appellees. E. L. Beach, for Pennsylvania Railroad Company et al., Appellants.

November 30, 1935.

[fol. 1635] [Endorsed:] No. 312. In the Supreme Court of the United States, October Term, 1935. Baltimore & Ohio Railroad Company, et al., Appellants, v. United States, Interstate Commerce Commission, et al., Appellees. Stipulation re Transcript of Record. Stanley F. Reed, for United States. E. M. Reidy, for Int. Com. Comm. Frank W. Gwathmey, for Atlantic Coast Line R. Co., et al. Elmer L. Beach, for Pennsylvania R. Co. et al. November 30, 1935.